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ANNEX A TO THE CHARLESTON OIL AND HAZMAT AREA CONTINGENCY PLAN
INTRODUCTION TO COMBINED ACP RESPONSE STRATEGY

1. GENERAL. In our environmentally and energy conscious world, environmental protection is one of the most important public concerns. The potential for a major pollution incident is always present when petroleum products or hazardous materials are moved or stored in bulk quantities on or near the water. In recent years, oil shipments have increased, tank vessels have grown in size and capacity, and many shoreside terminals have increased capacities and throughput without significant updates in the equipment.

Although the Charleston Area Committee's primary focus is pollution prevention, incidents may occur which will require an effective response to mitigate and control the situation. The intent of this plan is to provide for the coordination and direction of immediate and effective Federal, State and local government response to spills and releases. As a result of extensive preplanning among those organizations and agencies, this plan addresses the procedures that will be followed by the Federal On Scene Coordinator (FOSC) for:

- ◆ identifying response resources;
- ◆ making thorough notifications;
- ◆ affecting recovery, dispersal, and shoreline cleanup;
- ◆ protecting sensitive environments;
- ◆ protecting, rescuing, rehabilitating wildlife and fisheries; and
- ◆ initiating assessment of damages to natural resources.

2. CHARLESTON AREA PLAN. This plan will be used in conjunction with other national, regional, and local directives and should be used:

a. To identify the working relationships at each level of a response, the roles and responsibilities of all government response components, and the mechanism for activating and managing these resources.

b. As a working document and comprehensive reference source, since it will be updated frequently to maintain its validity.

c. To provide policies, procedures, and guidelines for response to spills of all sizes, including a worst case discharge.

d. As a guide for industry response plans. Recipients of this plan are encouraged to have a working knowledge of its contents, and provide timely updates as new information becomes available.

3. FUNCTIONAL FORMAT. This edition of the Charleston Area Contingency Plan been formatted to parallel the National Interagency Incident Management System (NIIMS), and has been expanded from the original version to address both oil and hazardous material response.

APPENDIX I TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP AUTHORITY

Reference: (a) 40 CFR 300, National Contingency Plan
(b) PL 101-380, Oil Pollution Act of 1990

1. AREA COMMITTEES. Section 4202 of the Oil Pollution Act of 1990 (OPA 90) amended Subsection (j) of Section 311 of the Federal Water Pollution Control Act (FWPCA) (33 USC 1321 (j)) to address the development of a National Planning and Response System. As part of this system, Area Committees are to be established for each area designated by the President. These Area Committees are to be comprised of qualified personnel from Federal, State, and local agencies. Each Area Committee, under the direction of the Federal On-Scene Coordinator (OSC) for the area, is responsible for developing an Area Contingency Plan (ACP) which, when implemented in conjunction with the National Contingency Plan (NCP), shall be adequate to remove a worst case discharge of oil or a hazardous substance, and to mitigate or prevent a substantial threat of such a discharge, from a vessel, offshore facility, or onshore facility operating in or near the geographic area. Each Area Committee is also responsible for working with State and local officials to pre-plan for joint response efforts, including appropriate procedures for mechanical recovery, dispersal, shoreline cleanup, protection of sensitive environmental areas, and protection, rescue, and rehabilitation of fisheries and wildlife. The Area Committee is also required to work with State and local officials to expedite decisions for the use of dispersants and other mitigating substances and devices.

2. AREA PLANS. The functions of designating areas, appointing Area Committee members, determining the information to be included in Area Contingency Plans, and reviewing and approving Area Contingency Plans have been delegated by Executive Order 12777 of 22 October 1991, to the Commandant of the U.S. Coast Guard (through the Secretary of Transportation) for the coastal zone, and to the Administrator of the Environmental Protection Agency for the inland zone. The term "coastal zone" is defined in the current NCP (40 CFR 300.5) to mean all United States waters subject to the tide, United States waters of the Great Lakes, specified ports and harbors on inland rivers, and the waters of the Exclusive Economic Zone (EEZ). The Coast Guard has designated as areas, those portions of the Captain of the Port (COTP) zones which are within the coastal zone, for which Area Committees will prepare Area Contingency Plans. The COTP zones are described in Coast Guard regulations (33 CFR Part 3).

APPENDIX II TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
ACRONYMS AND DEFINITIONS

Reference: (a) 40 CFR 300, National Contingency Plan
(b) PL 101-380, Oil Pollution Act of 1990
(c) 33 USC 1321, Federal Water Pollution Control Act of 1977
(d) 42 USC 9601, Comprehensive Environmental Response, Compensation, and Liability Act of 1980
(e) 42 USC 6903, Resource Conservation and Recovery Act

1. INITIALIZATIONS AND ACRONYMS.

COAST GUARD

CCGD7	Commander Seventh Coast Guard District
(d)	District Commander
(dcs)	District Chief of Staff
(dl)	District Legal Office
(dpa)	District Public Affairs
(f)	District Comptroller
(fac)	District Accounting Branch
(fcp)	District Procurement Branch
(m)	District Marine Safety Division
(mep)	District Marine Environmental Protection Branch
(o)	District Operations Division
CCGF	Commander Coast Guard Forces
CGHQ	Coast Guard Headquarters
CHRIS	Chemical Hazard Response Information System
CO	Commanding Officer
COMDTINST	Commandant Instruction
COMMEN	Communications Center
COTP	Captain of the Port, Charleston (same person as MSO and OSC)
DRAG	District Response Advisory Group
DRAT	District Response Advisory Team
FINCEN	Coast Guard Finance Center
FOSC	Federal On-Scene Coordinator (Same person as COTP and MSO)
G-L	Coast Guard's Office of Chief Council
G-M	Coast Guard's Office of Marine Safety, Security, and Environmental Protection
G-N	Coast Guard's Office of Navigation Safety and Waterway Services
GST	Gulf Strike Team
LAST	Atlantic Area Strike Team
MLC	Maintenance and Logistics Command
MSIS	Marine Safety Information System
MSM	Marine Safety Manual
MSO	Marine Safety Office, Charleston
NCP	National Contingency Plan

NPFC	National Pollution Fund Center
NRC	National Response Center
NRT	National Response Team
NSF	National Strike Force
NSFCC	National Strike Force Coordination Center
OCS	Outer Continental Shelf
PIAT	Public Information Assistance Team
RCP	Regional Contingency Plan
RNO	Regional News Office
RRT	Regional Response Team
SSC	Scientific Support Coordinator
TCC	Transportable Communications Center
USCG	United States Coast Guard

OTHER FEDERAL AGENCIES

CEO	Council on Environmental Quality
COE	U. S. Army Corps of Engineers
COS	Chief of Staff
DOC	U. S. Department of Commerce
DOD	U. S. Department of Defense
DOE	U. S. Department of Energy
DOI	U. S. Department of The Interior
DOJ	U. S. Department of Justice
DOL	U. S. Department of Labor
DOS	U. S. Department of State
DOT	U. S. Department of Transportation
EPA	U. S. Environmental Protection Agency
EPD	Emergency Preparedness Division
ERDA	U. S. Energy Research and Development Administration
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
GSA	General Services Administration
HHS	Department of Health and Human Services
MARAD	U. S. Maritime Administration
NASA	National Aeronautics and Space Administration
NIC	National Incident Commander
NICa	Alternate National Incident Commander
NIOSH	National Institute for Occupational Safety and Health
NITF	National Incident Task Force
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NWS	National Weather Service
OSHA	Occupational Health and Safety Administration
SUPSALV	Navy Supervisor of Salvage
USCG	U. S. Coast Guard

USGS	U. S. Geological Survey
USA	U. S. Army
USFWS	U. S. Fish and Wildlife Service
USMC	U. S. Marine Corps
USN	U. S. Navy

STATE AND LOCAL AGENCIES

DOSC	District On-Scene Coordinator
EPD	Charleston County Emergency Preparedness Division
LEPC	Local Emergency Planning Committee
LSCC	Liquid Spillage Control Committee, Charleston Area
PIC	Person-in-Charge
SCCC	South Carolina Coastal Council
SCDHEC	South Carolina Department of Health and Environmental Control
SCDNR	South Carolina Department of Natural Resources
SCDHEC/OCRM	South Carolina Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management
SCSPA	South Carolina State Ports Authority
SCWMR	South Carolina Department Wildlife and Marine Resources
SCWRC	South Carolina Water Resources Commission
SERC	State Emergency Response Commission
SOPs	Standard Operating Procedures
SOSC	State On-Scene Coordinator

MISCELLANEOUS

AC	Area Committee
ACGIH	American Conference of Government Industrial Hygienists
ACP	Area Contingency Plan
AICW	Atlantic Intercoastal Waterway
AIHA	American Industrial Hygiene
ALOHA	Aerial Location of Hazardous Atmospheres
ANSI	American National Standards Institute
AOC	Area Operations Coordinator
AOR	Area of Responsibility
APR	Air-Purifying Respirator
ASTM	American Society of Testing and Materials
ASTDR	Agency for Toxic Substances and Disease Registry
BOA	Basic Ordering Agreement
BBL	Barrel (42 U.S. gallons)
CAMEO	Computer Assisted Modeling of Emergency Operations
CDC	Center for Disease Control
CERCLA	Comprehensive Environmental Response Compensation and Liability Act (1980)
CFR	Code of Federal Regulations

CGI	Combustible Gas Indicator
CHEMTREC	Chemical Transportation Emergency Center
COFR	Certificate of Financial Responsibility
CWA	Clean Water Act
DECON	Decontamination
DRI	Direct Reading Instrument
EEZ	Exclusive Economic Zone
ERT	Emergency Response Team
ESI	Environmental Sensitivity Index
FTS	Federal Telecommunications System
FWPCA	Federal Water Pollution Control Act
GAL	Gallon
GC	Gas Chromatograph (or Gas Chromatography)
HPS	Hazardous Polluting Substance
IDLH	Immediately Dangerous to Life and Health
IRT	Initial Response Team
JIB	Joint Information Bureau
JOC	Joint Operations Center
JTC	Joint Transportation Center
LT	Long Ton (2240 pounds)
LC₅₀	Lethal Concentration, 50%
LD₅₀	Lethal Dose, 50%
LEL	Lower Explosive Limit
LT	Long Ton (2240 pounds)
MFTF	Marine Fire Fighting Task Force.
MSDS	Material Safety Data Sheet
MSM	Marine Safety Manual
MT	Metric Ton (2204.6 pounds)
NFPA	National Fire Protection Association
OCS	Outer Continental Shelf
OHMTADS	Oil and Hazardous Materials Technical Assistance Data System
OPA	Oil Pollution Act
OSLTF	Oil Spill Liability Trust Fund
PEL	Permissible Explosive Limit
POLREP	Pollution Report (telecommunications message)
PREP	Preparedness For Response Exercise Program
ppb	Parts per Billion
ppm	Parts per Million
ppt	Parts per Trillion
RCRA	Resource Conservation and Recovery Act
RP	Responsible Party
RRI	Response Resource Inventory
SARA	Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right to Know Act)
SARTEL	Search and Rescue Command Coordination Telephone
SONS	Spill of National Significance

ST	Short Ton (2000 pounds)
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average
UEL	Upper Explosive Limit
UL	Underwriters Laboratories
UN	United Nations
USC	U. S. Code

2. DEFINITIONS. This section represents a list of the most commonly used terms in this plan. Users should refer to the applicable laws and regulations referenced throughout this document for specific definitions.

ACTIVATION. The notification by telephone or other expeditious means to the appropriate state and local officials, to the regional or district office of participating agencies, or when required, the assembly of some or all members of the RRT or NRT.

ACTION LEVEL - A quantitative limit of a chemical, biological, or radiological agent at which actions are taken to prevent or reduce exposure or contact.

ACUTE EXPOSURE - A dose that is delivered to a receptor in a single event or in a short period of time.

ADVERSE WEATHER - The weather conditions that will be considered when identifying response systems and equipment in a response plan for the applicable operating environment. Factors to consider include significant wave height, ice, temperature, weather related visibility , and currents within the Captain of the Port (COTP) zone in which the systems or equipment are intended to function.

AIR SURVEILLANCE - Use of air monitoring and air sampling during a response to identify and quantify airborne contaminants on and off-site, and monitor changes in air contaminants that occur over the lifetime of the incidents.

AVERAGE MOST PROBABLE DISCHARGE (facilities) - A discharge of the lesser of 50 barrels or 1 percent of the volume of the worst case discharge.

AVERAGE MOST PROBABLE DISCHARGE (vessels) - Means a discharge of 50 barrels of oil from the vessel.

CERCLA - is the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1984.

CHEMICAL AGENTS - means those elements, compounds, or mixtures that coagulate, disperse, dissolve, emulsify, foam, neutralize, precipitate, reduce, solubilize, oxidize, concentrate, congeal, entrap, fix, make the pollutant mass more rigid or viscous, or otherwise facilitate the mitigation of deleterious effects or the removal of the pollutant from the water.

CHRONIC EXPOSURE - Low doses repeatedly delivered to a receptor over a long period of time.

COASTAL WATERS - U. S. waters which are navigable by deep-draft vessels, including the contiguous zone and parts of the high seas to which this plan is applicable, and other waters subject to tidal influence.

COASTAL ZONE - all U.S. Waters subject to the tide, U.S. Waters of the Great Lakes, specified ports and harbors on inland rivers, water of the contiguous zone, other waters of the high seas subject to the NCP, and the land surface or land substrata, ground waters and ambient air proximal to those waters.

CONFINEMENT - Control methods used to keep the material in its container. Examples: plugging and patching.

CONTAMINANT/CONTAMINATION - An unwanted and non-beneficial substance.

CONTINGUOUS ZONE - The zone of the high seas, established by the United States under Article 24 of the Convention on the Territorial Sea and Contiguous Zone, which is contiguous to the territorial sea and which extends nine miles seaward from the outer limit of the territorial sea.

CONTROL - Chemical or physical methods used to prevent or reduce the hazards associated with a material. Example: Neutralizing an acid spill.

COUNTY FIRE BOARD - A centralized coordination center whereby fire units are dispatched to respond to fire emergencies. These boards also coordinate summons for additional resources.

DECONTAMINATION - The process of physically removing contaminants from individuals and equipment or changing their chemical nature to innocuous substances.

DEGRADATION - Decomposition of a material by stages.

DIRECT READING INSTRUMENTS - A portable device that rapidly measures and displays the concentration of a contaminant in the environment.

EMERGENCY REMOVAL - Action/s undertaken, in a time-critical situation, to prevent, minimize, or mitigate a release that poses an immediate and/or significant threat to human health, welfare, or to the environment.

EPD - Emergency Preparedness Division. A state or county organization which develops local plans for dealing with emergencies/disasters of all kinds utilizing the best resources of local groups and agencies. Sponsors and participates in local emergency drills. Activates EOC during an actual emergency.

ENVIRONMENTAL ASSESSMENT - The measurement or prediction of the concentration, transport, dispersion, and final fate of a released hazardous substance in the environment.

ENVIRONMENTAL EMERGENCIES - Incidents involving the release (or potential release) of hazardous materials into the environment which require immediate action.

ENVIRONMENTAL HAZARD - A condition capable of posing an unreasonable risk to air, water, or soil quality, and to plants or wildlife.

EXCLUSIVE ECONOMIC ZONE - The zone contiguous to the territorial sea of the United States extending to a distance up to 200 nautical miles from the baseline from which the breadth of the territorial sea is measured.

EOC - Emergency Operations Center. A state or county run facility with extensive inter-agency communication and coordination capabilities. In Charleston County this facility is sponsored by Charleston County Emergency Preparedness Division (EPD). The EOC may be activated during significant emergencies such as a level 4 or 5 marine fire.

FIRST FEDERAL OFFICIAL - The first federal representative of a participating agency of the National Response Team to arrive at the scene of a release. This official coordinates activities under the NCP and may initiate, in consultation with the OSC, any necessary actions until the arrival of the predesignated OSC. A state with primary jurisdiction over a site by a cooperative agreement will act instead as the first federal official for any incident at the site.

FIRST RESPONDER - The first personnel to arrive on the scene of a hazardous materials incident. These are usually officials from local emergency services, firefighters, and police.

HAZARD - A circumstance or condition that can do harm. Hazards are categorized into four groups: biological, chemical, radiation, and physical.

HAZARD CLASSES (1-9) - A series of nine descriptive terms that have been established by the UN Committee of Experts to categorize the hazardous nature of chemical, physical, and biological materials. These categories are:

1. Explosives,
2. Non-flammable and flammable gases,
3. Flammable liquids,
4. Flammable solids,
5. Oxidizing materials,
6. Poisons, irritants, and disease causing materials,
7. Radioactive materials,
8. Corrosive materials, and
9. Miscellaneous hazardous materials

HAZARDOUS MATERIAL - A substance or material which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated. (DOT)

HAZARDOUS SUBSTANCE - Means: 1) Any material and its mixtures or solutions that are listed in Appendix A to the Hazardous Materials Table in 49 CFR 172.101, when offered for transportation in one package, or in one transport vehicle if not packaged, and when the quantity of the material therein equals or exceeds the reportable quantity. 2) Any substance designated pursuant to Section 311(b)(2)(A) of the CWA; any element, compound, mixture solution, or substance designated pursuant to Section 102 of CERCLA; any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act (but not including any waste of the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); any toxic pollutant listed under Section 307(a) of the CWA; any hazardous air pollutant listed under Section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to Section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (of mixtures of natural gas and such synthetic gas).

HAZARDOUS WASTE - Any material that is subject to the hazardous waste manifest requirements of the EPA specified in 40 CFR, Part 262 or would be subject to these requirements in the absence of an interim authorization to a State under 40 CFR Part 123, Subpart F.

INLAND WATER - For the purposes of classifying the size of discharges, means those waters of the United States in the inland zone, waters of the Great Lakes, and specified ports and harbors on inland rivers.

INLAND ZONE - The environment inland of the coastal zone excluding the Great Lakes and specified ports and harbors on inland rivers. The term inland zone delineates an area of federal responsibility for response action. Precise boundaries are determined by EPA/ USCG agreements and identified in federal regional contingency plans.

KEY TECHNICAL ADVISORS (KTA) - A group with special expertise in fire fighting and the marine environment who provide advice to the Responsible Fire Department and may activate to the Forward EOC or Command Post if needed. They provide operational advice under the auspices of the Captain of the Port and provide administrative liaison between MFTF resources and the Responsible Fire Department.

LIMITED QUANTITY - With the exception of Poison B materials, the maximum amount of a hazardous material for which there is a specific labeling and packaging exception.

MAJOR DISCHARGE - A discharge of more than 10,000 gallons of oil to the inland waters; or a discharge to the coastal waters of more than 100,000 gallons of oil; or a discharge of a hazardous substance that poses a substantial threat to the public health or welfare, or results in critical public concern (40 CFR 117).

MAJOR RELEASE - Means a release of a hazardous substance which poses a substantial threat to public health and welfare and the environment or is of a significant public concern.

MARINE TRANSPORTATION-RELATED FACILITY (MTR facility) - An onshore facility, including piping and any structure used to transfer oil to or from a vessel, subject to regulation under 33 CFR Part 154 and any deepwater port subject to regulation under 33 CFR Part 150.

MAXIMUM EXTENT PRACTICABLE (facility) - The planning values derived from the planning criteria used to evaluate the response resources described in the response plan to provide the on-water recovery capability and the shoreline protection and clean up capability to conduct response activities for a worst case discharge from a facility in adverse weather.

MAXIMUM EXTENT PRACTICABLE (vessel) - The planning values derived from the planning criteria used to evaluate the response resources necessary to provide the on-water recovery capability and the shoreline protection and clean up capability to conduct response activities for a worst case discharge from a facility in adverse weather.

MAXIMUM MOST PROBABLE DISCHARGE (facility) - A discharge of the lesser of 1,200 barrels or 10 percent of the volume of a worst case discharge.

MAXIMUM MOST PROBABLE DISCHARGE (vessel) - Means a discharge of up to:

- 2,500 barrels of oil for vessels with an oil cargo capacity equal to or greater than 25,000 barrels; or
- 10% of the vessels oil cargo capacity for vessels with a capacity of less than 25,000 barrels.

MAXIMUM MOST PROBABLE RELEASE - Means a medium or major release of a hazardous substance on a vessel or facility which will require additional time and resources beyond those required to respond to a "most probable release". Use of outside resources to augment local response equipment and personnel is anticipated.

MEDIUM DISCHARGE - A discharge of 1,000 to 10,000 gallons of oil to the inland waters; or a discharge of oil of 10,000 to 100,000 gallons to the coastal waters; or a discharge of a hazardous substance equal to or greater than a reportable quantity as defined by regulation (40 CFR 117).

MEDIUM RELEASE - Means all releases of a hazardous substance other than a minor or major release.

MINOR DISCHARGE - A discharge to the inland waters of less than 1,000 gallons of oil; or a discharge to the coastal waters of less than 10,000 gallons of oil; or a discharge of a hazardous substance in a quantity less than that defined as reportable by regulation (40 CFR 117).

MINOR FIRE -

1. Vessel: A fire that involves only one space (not the machinery space) is not spreading or threatening to spread or threatens the loss of the vessel.

2. Facility: Any fire that does not require more than a first alarm response to control and extinguish.

MINOR RELEASE - Means a release of a hazardous substance which poses minimal threat to public health and welfare or the environment.

MITIGATION - Actions taken to prevent or reduce the severity of threats to human health and the environment.

MOBILE FACILITY - Means tanktrucks, railroad tankcars, or marinas that are capable of transferring hazardous substances in bulk.

MONITORING - The process of sampling and measuring certain environmental parameters on a real-time basis for spatial and time variations. For example, air monitoring may be conducted with direct reading instruments to indicate relative changes in air contaminant concentrations at various times.

MOST PROBABLE RELEASE - Means a minor release of a hazardous substance on a vessel or facility which requires minimum local resources to affect a safe and effective response. Initial response resources are sufficient to mitigate a most probable release.

NON-PERSISTENT OR GROUP I OIL - A petroleum-based oil that, at the time of shipment, consists of hydrocarbon fractions:

- At least 50% of which by volume, distill at a temperature of 340 degrees C (645 degrees F); and
- At least 95% of which by volume, distill at a temperature of 370 degrees C (700 degrees F).

NON-PETROLEUM OIL - Oil of any kind that is not petroleum-based. It includes, but is not limited to, animal and vegetable oils.

PERMEATION - The migration or diffusion (spread, flow through) of a chemical through material.

PERSISTENT OIL - A petroleum-based oil that does not meet the distillation criteria for a non-persistent oil. For the purposes of this Appendix, persistent oils are further classified based on specific gravity as follows:

Group II - Specific gravity less than .85.

Group III - Specific gravity between .85 and .95.

Group IV - Specific gravity between .95 and 1.0.

Group V - Specific gravity greater than 1.0.

POLLUTANT - A substance or mixture which after release into the environment and upon exposure to any organism will or may reasonably be anticipated to cause adverse effects in such organisms or their offspring.

PROTECTION LEVELS -

LEVEL "A" - Provides the highest level of respiratory, skin, and eye protection.

LEVEL "B" - Provides the highest level of respiratory protection, but a lesser degree of skin protection.

LEVEL "C" - Provides protection against selected known types and concentrations of airborne substances with use of the proper air purifying respirators and filter canisters. Skin protection is comparable to Level "B".

LEVEL "D" - Provides minimal protection and augments the regular work uniform. It is not adequate in areas with respiratory or skin hazards.

QUALIFIED INDIVIDUAL - An English-speaking representative of the facility or vessel, identified in the plan, located in the United States, available on a 24-hour basis, familiar with implementation of the facility response plan, and trained in his or her responsibilities under the plan. This person must have full written authority to implement the facility's response plan. This includes:

- ◆ Activating and engaging in contracting with identified oil spill removal organization(s);
- ◆ Acting as a liaison with the predesignated Federal On-Scene Coordinator (FOSC); and
- ◆ Obligating, either directly or through prearranged contracts, funds required to carry out all necessary or directed response activities.

RELEASE - Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing of hazardous substance (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant) into the environment.

REPORTABLE QUANTITY (RQ) - As set forth in the CWA, the minimum amount (pounds or kilograms) of a hazardous substance that may be discharged in a 24 hour period that requires notification of the appropriate government agency.

RESPONSE RESOURCES - Means the personnel, equipment, supplies, and other capabilities necessary to perform the response activities identified in a response plan.

RESPONSIBLE FIRE DEPARTMENT - The fire department within whose jurisdiction the fire lies.

ROUTES OF EXPOSURE - The manner in which a contaminant enters the body through inhalation, ingestion, skin absorption, and injection.

SMALL FACILITY - Any water front facility with a capacity of less than 250 barrels (10,500 gals) of petroleum products or reportable quantities of hazardous material.

STABILITY FORCES -

1. Negative Forces: The movement or addition of weight or liquids, that cause a vessel to list and not return to even, level condition.

2. Positive Forces: The movement or removal of weight or liquids to correct a vessel list or the addition of ballast or counter weights to offset negative forces.

SUBSTANTIAL THREAT OF A DISCHARGE (facility) - Any incident or condition involving a facility that may create a risk of discharge of fuel or cargo oil. Such incidents include, but are not limited to, storage tank or piping failures, above ground or underground leaks, fires, explosions, flooding, spills contained within the facility, or other similar occurrences.

SUBSTANTIAL THREAT OF A DISCHARGE (vessel) - Any incident involving a vessel that may create a significant risk of discharge of fuel or cargo oil. Such incidents include, but are not limited to groundings, strandings, collisions, hull damage, fire, explosion, flooding, on-deck spills, loss of propulsion, or other similar occurrences.

SUBSTANTIAL THREAT OF A RELEASE (facility) - Means any incident or condition involving a facility that may create a risk of a hazardous substance release. Such incidents include, but are not limited to storage tank or piping failures, above ground or underground leaks, fires, explosions, flooding, spills contained within the facility, or other similar occurrences.

SUBSTANTIAL THREAT OF A RELEASE (vessel) - Means any incident involving a vessel that may create a significant risk of a hazardous substance release. Such incidents include, but are not limited to groundings, strandings, collisions, hull damage, fire, explosion, flooding, on-deck spills, loss of propulsion, or other similar occurrences.

TOXICITY - The ability of a substance to produce injury once it reaches a susceptible site in or on the body.

VESSELS CARRYING OIL AS A PRIMARY CARGO - All vessels carrying bulk oil cargo that have a valid Certificate of Inspection issued under 46 CFR Subchapter D (except for dedicated response vessels), a valid Certificate of Compliance, or a valid Tank Vessel Examination.

VESSELS CARRYING OIL AS A SECONDARY CARGO - Vessels carrying oil pursuant to a permit issued under 46 CFR Subchapter D (30.01-5), 46 CFR Subchapter H (70.05-30), or 46 CFR Subchapter I (90.05-35), an International Oil Pollution Prevention (IOPP) or Noxious Liquid Substance (NLS) certificate required by 33 CFR 151.33 or 151.35, a dedicated response vessel operating outside a response area, or any uninspected vessel that carries bulk oil cargo.

VESSEL STABILITY - The inherent ability of a vessel to remain upright in an even and level condition and the negative forces that alter this ability or the positive forces required for a vessel to return to a even and level condition.

WATERFRONT FACILITY - All piers, wharves, docks and similar structures to which vessels may be secured. This includes buildings on or contiguous to such structures and the equipment and materials on such structures.

WORST CASE DISCHARGE (facilities) -

1. For facilities with **above ground storage**, not less than:

Loss of the entire capacity of all tank(s) at the facility not having secondary containment; plus

Loss of the entire capacity of any single tank within a second containment system or the combined capacity of the largest group of tanks within the same secondary containment system, whichever is greater.

2. For facilities with **below ground storage** supplying oil to or receiving oil from the marine transportation related (MTR) portion:

The cumulative volume of all piping carrying oil between the marine transfer manifold and the non-transportation-related portion of the facility. The discharge of each pipe is calculated as the maximum time to discover the release from the pipe in hours, plus the maximum time to shut down flow from the pipe in hours (based on historic discharge data or the best estimate in the absence of historic discharge data for the facility) multiplied by the maximum flow rate expressed in barrels per hour (based on the maximum daily capacity of the pipe) plus the total line drainage volume expressed in barrels for the pipes between the marine manifold and the non-transportation related portion of the facility.

WORST CASE DISCHARGE (vessel) - A discharge in adverse weather conditions of a vessel's entire oil cargo.

WORST CASE RELEASE - Means a medium or major release of a hazardous substance on a vessel or facility which requires a long-term response. A worst case release has the potential to exhaust local response/cleanup resources. Outside equipment and personnel may be required to augment local response efforts.

APPENDIX III TO ANNEX A TO THE CHARLESTON AREA OIL & HAZMAT ACP AREA COMMITTEE PURPOSE AND OBJECTIVE

Reference: (a) 40 CFR 300, National Contingency Plan
(b) PL 101-380, Oil Pollution Act of 1990

1. AREA COMMITTEE. The Area Committee is an oil spill and hazardous substance release preparedness and planning body made up of Federal, State, and local agency representatives. The OSC will coordinate the activities of the Area Committee and assist in the development of a comprehensive Area Contingency Plan that is consistent with the NCP.
2. AREA CONTINGENCY PLAN. This Area Contingency Plan describes the strategy for a coordinated Federal, State and local response to a discharge or substantial threat of discharge of oil or a release of a hazardous substance from a vessel, offshore facility, or onshore facility operating within the boundaries of the Area of Charleston, SC. This plan considers response to a most probable discharge or release, a maximum most probable discharge, and a worst case discharge including discharges from fire or explosion. Planning for these scenarios should cover the expected range of spills or releases likely to occur in the area.
3. SCENARIO DEVELOPMENT. The planning process is based on exercising probable scenarios that are created by Area Committee participants. The scenario should be developed by the participants and local port community responders so they are sure to include specific issues relevant to their localities. Therefore, contingency planners, shippers, manufacturers of hazardous substances, as well as members of the response community, both public and private, are encouraged to participate in the scenario development step. Scenarios should challenge existing plans and test a variety of modes of transportation and incident locations.

The scenario development process focus is to identify those aspects of an oil or HAZMAT response that need planning attention. This phase requires that the stakeholders of the Incident Command System (ICS) participate in either imaginary scenarios and/or debriefs of actual incidents. The exercise of scenarios tests the premises of the plan and begins the process of identifying conflicting goals, developing common goals and decision making methods the response organization will use to solve problems together. To successfully manage a response that is evolving and is constantly changing, it is critical that the stakeholders understand the goals of each other's organization and how they are all brought together in the Unified Command. The goal is for participants in this process to learn from the experience and adjust the way they will respond to the next incident. The goal for the planning community is, that needed changes be captured in the ACP and that the lessons learned benefit the community and the responders during future incidents.

4. PLAN UTILIZATION. This plan shall be used as a framework for response mechanisms to evaluate shortfalls and weaknesses in the response structure before an incident, and as a guide for reviewing vessel and facility response plans required by OPA 90, to ensure consistency. The review for consistency should address, as a minimum, the economically and environmentally sensitive areas within the area, the response equipment (quantity and type) available within the area, response personnel available, equipment and personnel needs compared to those available, protection strategies, etc.

TAB a TO APP III TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
AREA COMMITTEE, EXECUTIVE STEERING COMMITTEE

References: (a) 40 CFR 300, National Contingency Plan
(b) PL 101-380, Oil Pollution Act of 1990

1. EXECUTIVE STEERING COMMITTEE. In accordance with the definition set forth in reference (a), an Area Committee means the entity appointed by the President consisting of members of federal, state, and local agencies with responsibilities that include preparing an area contingency plan for an area designated by the President. The Executive Steering Committee is comprised of those few agencies with primary contingency planning responsibility for the area affected by this plan. The Charleston Area Executive Steering Committee is comprised of the following:

CDR F. J. Sturm Federal On-Scene Coordinator (FOSC) U.S. Coast Guard	Chairman
Mr. Chris Staton State On-Scene Coordinator (SOSC) SC DHEC	Vice Chairman
Brad Benggio NOAA SSC	Scientific Support Coordinator
XXXX U.S. Fish and Wildlife Service	NRDA, Federal
Mr. Ron Robstrom NOAA/National Marine Fisheries Service (NMFS)	NRDA, Federal, Alt
Mr. Jimmy Hadden U.S. Army Corps of Engineers	DOD
Ms. Priscilla Wendt SC DNR	NRDA, State
Mr. Shawn Jones Charleston County Emergency Preparedness Division	County EPD/LEPC rep
Mr. N. P. Chris Waters Charleston County Hazardous Materials	County HAZMAT rep
LCDR C. W. Jennings U.S. Coast Guard	Secretary

TAB b TO APP III TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
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TAB c TO APPENDIX III TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
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Ms. Donna Rakoske	Chasn Co HAZMAT	
Mr. Chris Waters	Chasn Co HAZMAT	
Mr. Denver Merrill	SC Sea Grant Program	
Mr. David Miller	Marine Chemist	
Ms. Jamie Thomas	Chasn Co Public Affairs	
Mr. Bill Meisburger	Detyens Shipyard	

ENCL i TO TAB c TO APP III TO ANNEX A TO THE CHARLESTON O&H ACP
PAST AREA WORKING GROUPS AND MEMBERS 1994-1995

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CAPT R. BENNIS, USCG

EXECUTIVE STEERING GROUP

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Mr. Chris Staton	SCDHEC	Area Committee Vice Chairman
LT J. Persall	USCG	Spill Management WG Team Ldr
Ms. Jane Settle	SCDNR	Natural/Cult Res WG Team Ldr
Mr. Chris Waters	CHACO	Training WG Team Ldr

INCIDENT MANAGEMENT WORKING GROUP

* LT J. Persall	USCG	USCG Rep. & Team Leader	
Mr. Wayne Fanning	SCDHEC	SC State Rep & Asst Ldr	
Mr. Shawn Jones	EPD	County Emerg Preparedness Rep	
Mr. Paul Gawrych	FENNVAC	Response Contractor Rep	/
Mr. Tom Eason	EASONDV	Response Contractor Rep	/ O
Mr. L. Strickland	3R	Response Contractor Rep	/ I
Mr. G. Campbell	LSCC	Industry Rep	/ L
Mr. David Harris	USACOE	ACOE Representative	/
Ms. Donna Rakoska	CHASCO	County Hazmat Rep	/
Ch. Ken Fisher	STANDRW	Local Hazmat Rep	/ H
Ch. Butch Walker	STJOHNS	Local Hazmat Rep	/ A
Ch. Mike Baxley	NCHAS	Local Hazmat Rep	/ Z
Ch. Ronney Classen	CHAS	Local Hazmat Rep	/ M
Cpt. Bud Thimes	MTPLEAS	Local Hazmat Rep	/ A
Mr. G. Campbell	LSCC	Industry Rep	/ T

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Mr. Wayne Fanning	SC DHEC
Mr. Roger Rodriguez	U.S. ACOE
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Mr. Jerry Franks	SC State Ports Authority
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ENCL ii TO TAB c TO APP III TO ANNEX A TO THE CHARLESTON O&H ACP
PAST AREA WORKING GROUPS AND MEMBERS 1995-1996

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Ch. Mike Baxley	NCHAS	Local Hazmat Rep	/Z
Ch. Ronney Classen	CHAS	Local Hazmat Rep	/M
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ENCL iii TAB c TO APP III TO ANNEX A TO THE CHARLESTON O& H ACP
PAST AREA WORKING GROUPS AND MEMBERS 1996-1998

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MARINE FIRE FIGHTING WORKING GROUP

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CH. Mims	Mt. Pleasant	843-884-0623
Mr. Steve Kicklighter	McAllister Towing	843-577-6449
Mr. David Morton	White Stack Towing/TES	843-577-6556
CH. S.H. English	St. Johns FD	843-559-9194
CH. A. Risanen	City of North Charleston	843-554-5700
Mr. Bill McLane	President LSCC	843-308-2204
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NATIONAL HISTORIC PRESERVATION WORKING GROUP

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Mr. Chris Sherman	State Historic Pres Ofc	843-734-8612
Ms. Jody Muldrow	City of Charleston	843-724-3775
Ms. Elizabeth Boyles	Town of Mt. Pleasant	843-
Mr. Bill Gore	City of North Charleston	843-554-5700
Mr. James Hackett	Charleston Harbor Project	843-744-5838
Mr. Jansen Cox	Charles Towne Landing	843-852-4200
Mr. George McDaniel	Drayton Hall	843-766-0188
Ms. Sierra Neal	Nat'l Trust for Hist Pres	843-722-8552
Ms. Liz Alston	SC African Heritage Council	843-723-0941
Mr. Bill Miller	Charleston County Planning	843-723-6739

APPENDIX IV TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP GEOGRAPHIC BOUNDARIES

References: (a) 33 CFR 3.35-15, Charleston Marine Inspection Zone and Captain of the Port Zone
(b) EPA Region IV Oil & Hazardous Substances Regional Contingency Plan
(c) Navigation and Vessel Inspection Circular No. 13-92, Captain of the Port Boundaries

1. GENERAL. There are several Federal boundaries which are important to recognize when dealing with incidents involving the discharge or potential discharge of oil or hazardous substances. Those Federal boundaries, or zones, determine which Federal agency has primary jurisdiction and authority. For the purpose of this plan, there are three specific Federal zones of responsibility. The zones include, the Officer in Charge of Marine Inspection (OCMI) zone, the Captain of the Port (COTP) zone, and the Coast Guard predesignated Federal On Scene Coordinator (FOSC) zone. State and local boundaries correspond to their defined political boundaries.

a. OCMI Zone. The OCMI zone is that area in which the OCMI Charleston, (Commanding Officer, Marine Safety Office Charleston), is responsible for inspecting U.S. and certain foreign flagged vessels, and investigating certain marine casualties, some of which involve oil discharges. The OCMI zone is defined in reference (a) and is included in Tab A to this appendix.

b. COTP Zone. The COTP zone is that area in which COTP Charleston, (Commanding Officer, Marine Safety Office Charleston), is responsible for the safety and security of the port and activities including marine environmental protection on the navigable waters of the U.S. The COTP Charleston and OCMI Charleston zones are identical with regard to boundaries.

c. FOSC Zone. The area in which COTP Charleston is the predesignated FOSC for oil spills is defined by a Memorandum of Understanding (MOU) between the Coast Guard and the EPA. As a result of the MOU and as delineated therein, the COTP Charleston is the predesignated FOSC for the coastal areas and the EPA is responsible for the inland areas. See reference (b) for details.

2. CHARLESTON AREA PLAN. This Contingency Plan applies only in the zone where the COTP is the predesignated FOSC.

3. GEOGRAPHIC BOUNDARIES.

a. Pre-designated FOSC Zone. As defined in the MOU between U.S. EPA (Region IV) and the Seventh U.S. Coast Guard District, the Commanding Officer, Marine Safety Office, Charleston, South Carolina will be the pre-designated Federal OSC in the coastal areas on the eastern coast of South Carolina from the North Carolina-South Carolina State boundary southward to the southern tip of Bay Point, Edisto Island (near Edisto Beach), South Carolina.

(1) Inshore. From the North Carolina-South Carolina state boundary northwesterly along the boundary to U.S. Highway 17; thence southeasterly along U.S. Highway 17 to the south along the eastern bank to the MSO Charleston-MSO Savannah boundary at 32 °30'N latitude.

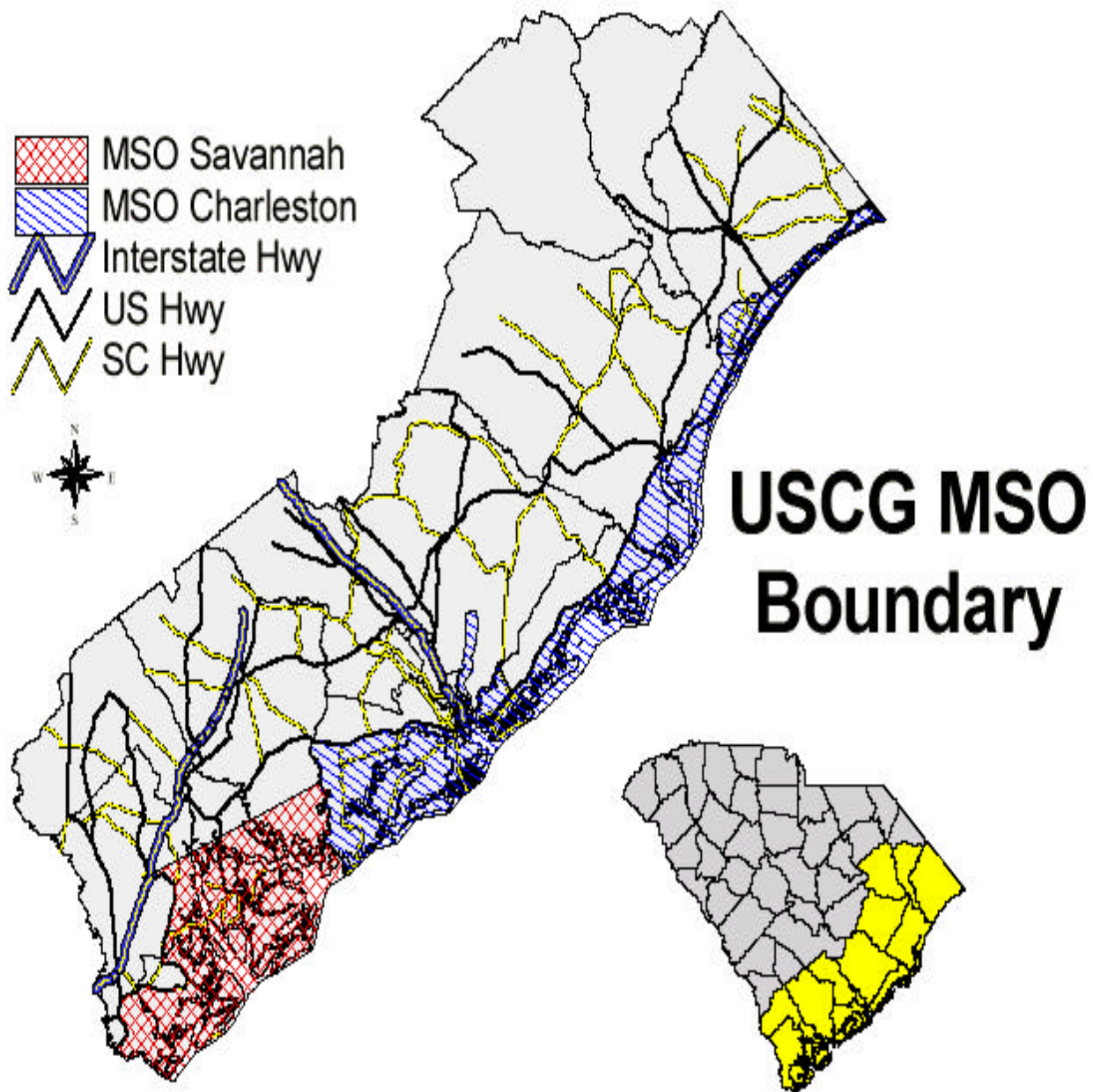
Included with this zone are Charleston and Georgetown Harbor areas, including waterfront facilities, specifically:

- Ashley River from the Memorial Bridge (State Hwy 7) seaward;
- Wando River from State Highway 41 Bridge seaward;
- Cooper River from General Dynamics Private Aids 339 and 40 seaward; and
- Sampit River/Winyah Bay (near Georgetown) area, from one mile west of U.S. Highway 17 Sampit River Bridge seaward.

Also included are all portion of the Intracoastal Waterway (ICW) not within the above defined area.

(2) Offshore. In the event of an offshore incident, the FOSC offshore responsibility starts at a line bearing 122 °T from the intersection of the South Carolina-North Carolina boundary and the sea to the outermost extent of the Exclusive Economic Zone (EEZ); thence southerly along the outermost extent of the EEZ to 30 °50'N latitude; thence west along 30 °50'N latitude to a line bearing 122 °T from the southern tip of Bay Point, Edisto Island, South Carolina; thence westerly along a line bearing 122 °T to the coast. MSO Charleston's authority to investigate and prosecute OPA 90 violations in the offshore area extends to the outermost extent of the EEZ.

b. OCMI/COTP Zone. As defined in reference (a), the boundary of the Charleston Marine Inspection Zone and the Captain of the Port starts at the sea at the intersection of the North Carolina-South Carolina boundary; thence proceeds westerly along the North Carolina-South Carolina boundary to the intersection of the North Carolina-South Carolina-Georgia boundaries; thence southerly along the South Carolina-Georgia boundary to the intersection with the federal dam at the southern end of Hartwell Reservoir; thence southerly along the eastern bank of the Savannah River to 32 °41'N latitude; thence southerly along the eastern bank of the Edisto River to the southern tip of Bay Point, Edisto Island, South Carolina. The offshore boundary starts at a line bearing 122 °T from the intersection of the South Carolina-North Carolina boundary and the sea to the outermost extent of the Exclusive Economic Zone (EEZ); thence southerly along the outermost extent of the EEZ to 30 °50'N latitude; thence west along 30 °50'N latitude to a line bearing 122 °T from the southern tip of Bay Point, Edisto Island, South Carolina; thence westerly along a line bearing 122 °T to the coast.



TAB a TO APP IV TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
AREA RESPONSE HISTORY

1. GENERAL.

a. The geographic area covered by this plan contains the commercial ports of Charleston and Georgetown, and numerous harbors for fishing and recreational vessels.

b. Charleston is the only port in this AC's AOR with significant volumes of oil or hazardous materials moving through the port. There are several facilities that handle lubricating oil feed stocks and light fuel oils. Two facilities handle p-Xylene. Much of the oil moving in the Port of Charleston is in the form of ship bunkers.

2. OIL SPILL HISTORY. In recent years, there have been no significant oils spills involving bunkers or cargo from major vessels or facilities. There have been many small spills from these sources. Most of these spills have been less than 50 gallons and have involved diesel fuel. The majority of the oil spills in this AC's AOR come from fishing and pleasure vessels, and land based sources.

a. Fishing Vessels and Pleasure Craft.

(1) **Minor Spills.** Fishing vessels and pleasure craft account for two to four oil spills per month. The majority of these spills are between five and fifty gallons of diesel fuel or oily bilge water. Due to the type of material, size of spill, currents, and response time to the northern part of the AOR, a responsible party is rarely identified for these spills. Clean up is normally not a reasonable alternative.

(2) **Larger Spills.** Approximately six times a year, fishing vessels or pleasure craft are responsible for larger spills due to sinkings, groundings, or fires. These are normally diesel fuel with a spill range of 300 to 1,000 gallons. Effective cleanup is possible in most of these incidents. However, at times the location of the vessel, or weather conditions limit cleanup actions.

b. Land sources. Land-based sources (construction, marinas) account for approximately two spills each month. These are normally small spills of diesel fuel or hydraulic fluid.

c. Non-point Source. Non-point source spills potentially account for more spillage than any other single medium. Non-point source includes parking lot run-off into drainage systems and eventually into navigable waterways.

3. HAZARDOUS MATERIAL OR SUBSTANCE RELEASES.

a. Overview. Charleston is a major container port: sixth largest volume in the country and second only to the Port Authority of New York & New Jersey on the Atlantic and Gulf Coasts. More than 1,000,000 twenty-foot equivalent units (TEUs) are handled by the Port of Charleston each year. Many of these containers carry hazardous materials. Releases from containers occur once or twice a quarter. Normally, these spills do not impact the water.

4. NOTABLE INCIDENTS. The most notable incidents in this Committee's area of responsibility include:

January 1992 - Five week response to a release of several hundred pounds of magnesium phosphide and arsenic trioxide from containers aboard the M/V SANTA CLARA I.

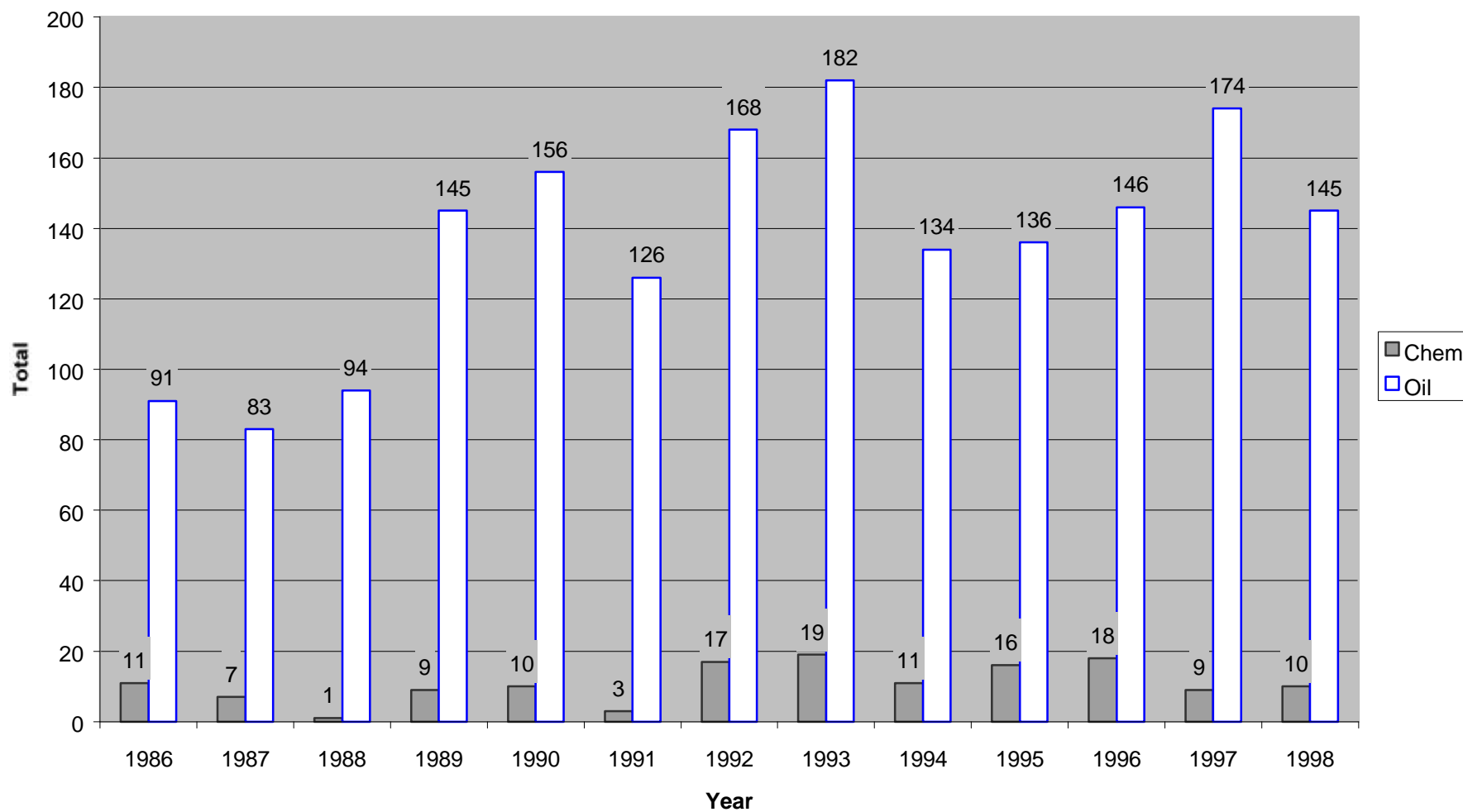
August 1993 - 36-hour response to a monochloroacetic acid release aboard the M/V NEWARK BAY which grounded and became tangled in power lines.

October 1995 - 10 month response to dioxin release near Charleston Entrance Channel. The release occurred as a result of the intentional grounding of a hopper barge, F/B PATRICIA SHERIDAN, containing approximately 12,500 tons of New York Harbor dredge spoils tainted with dioxin. The intentional grounding was made due to the barge taking on a heavy port list and the tug captain's fear of losing the barge in the channel. After grounding, the barge took on a greater list and released approximately 2,500 tons of its tainted cargo near the entrance channel. The response required three dredging operations to thoroughly clean the area and multiple sampling operations, ocean bottom and biota, to verify progress and completeness. Incident required the activation of the RRT and full involvement resource trustees at the federal and state level.

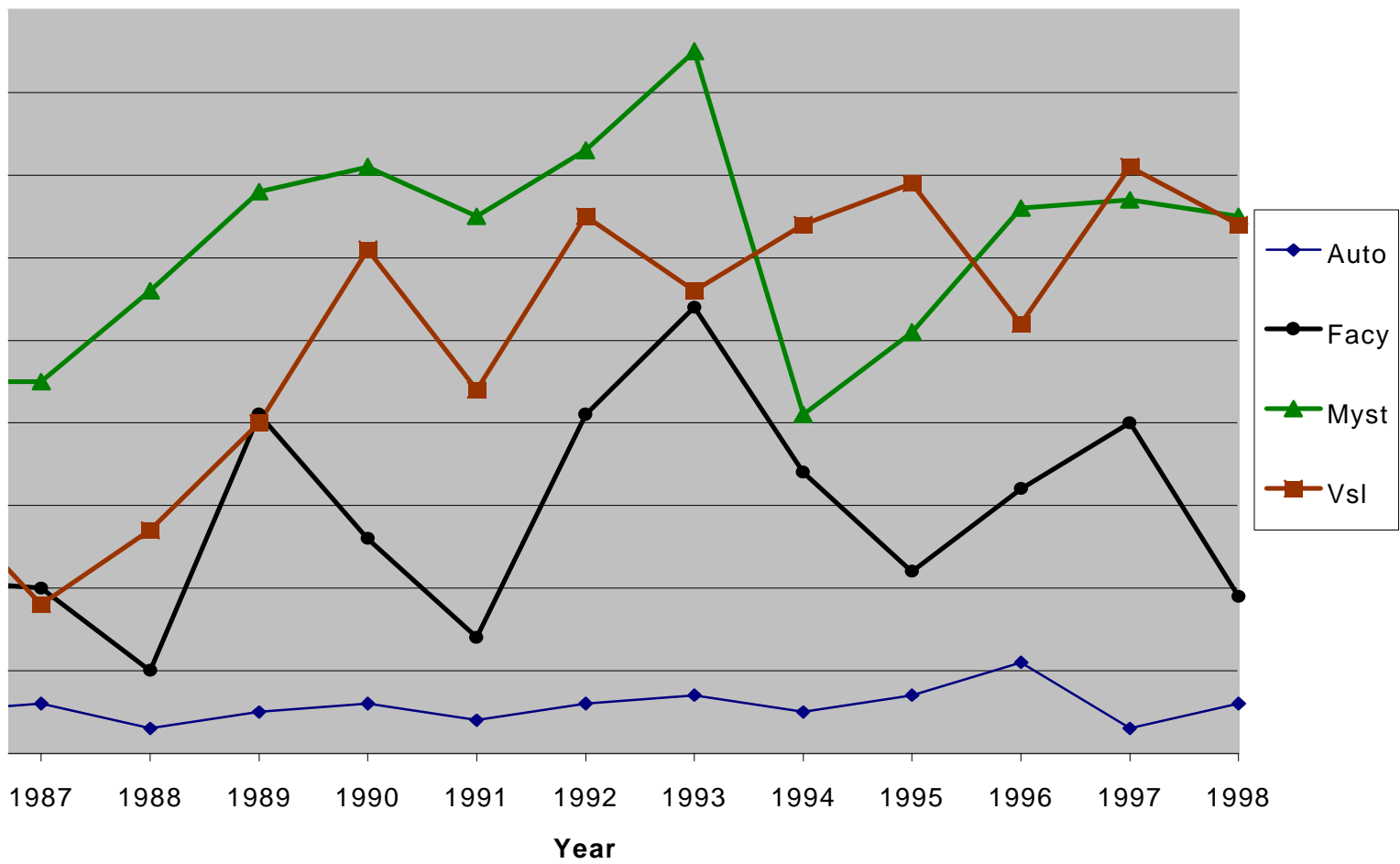
May 1996 - 3 month response to a cyanuric chloride release aboard the M/V EVER ROYAL in May 1996. Although the initial incident aboard the vessel was cleaned up within one week, the need to neutralize the unstable material on site required another 2.5 months of on-site incident management at North Charleston Terminal.

January 1999 - 30 day response to oiled birds along the shore of North and South Carolina. Over 186 birds were recovered during this effort but few survived due to the extent and duration of their contamination. Source of the contamination was determined to be the M/V STAR EVVIVA which spilled over 24,000 gallons of #6 HFO approximately 30 miles off of South Carolina's coast. This spill was found to be the largest maritime spill on record for South Carolina.

**COASTAL SOUTH CAROLINA
REPORTED SPILLS AND RELEASES
1986 - 1998**



Charleston Area Spills and Releases by Source



TAB b TO APP IV TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP SENSITIVE AREAS

1. SENSITIVE AREA DESCRIPTION REFERENCES.

The COTP CHARLESTON Response Zone is composed largely of environmentally sensitive types of wetlands and waterways. Accordingly, these areas support vast populations of various wildlife and aquatic species.

A set of detailed maps showing the sensitivity of various coastal environments based on the Environmental Sensitivity Index (ESI) was prepared for the South Carolina Coastal Area RPI in July 1996. The ESI maps show the distribution and relative oil spill sensitivity of 10 classes of shorelines and oil-sensitive wildlife, in color coding on 1:24,000 scale. Each map covers an area approximately 7.5 X 4 miles. The ESI maps are maintained at the USCG MSO and in the offices of the SC DHEC and SC DNR.

A less detailed and more concise set of maps identifying specific sensitive areas and proposed cleanup measures for each are included herein (Exhibit i) to assist in determining priorities for protection. These maps and their keys are not intended to provide information about why given areas are sensitive and warrant protection, but simply to function as a tool in making initial decisions regarding boom placement, etc.

2. SHORELINE DESCRIPTIONS.

The 10 types of shorelines from the ESI maps have been consolidated into 3 groups on the maps in Tab B: low, medium, and high sensitivity (Table A.IV.b.1).

The most sensitive shorelines in the response area are sheltered tidal flats and marshes. The substrate in these high-sensitivity areas is usually soft mud, reflective of the low energy typical of these environments. Marsh vegetation types are directly related to water salinity. The portions of saltwater marshes that are most frequently inundated by tidal action are vegetated with saltmarsh cordgrass (***Spartina alterniflora***), whereas the primary plant species occurring in brackish-water marshes is black needlerush (***Juncus roemerianus***). Freshwater environments along the major rivers consist of freshwater marshes, old rice field systems and bottomland hardwood swamps.

In this AC's response area, broad intertidal mudflats front many of the marshes. Because of the high sedimentation rates, the tidal flats are typically quickly built up and vegetated by marsh grasses. The marsh is considered to be of great ecological value both because it serves as a nursery ground to numerous species of invertebrates and finfish and because the plants in these areas serve as the basis of the food chain in estuarine systems. The decomposed plant material, or detritus, is consumed by the zooplankton and scavenger animals, such as crabs, which in turn are consumed by various larger animals. Thus, a very complex food web of plants and animals exists and functions efficiently in the saltmarsh ecosystem. Additionally, saltmarshes and estuaries are important nursery areas for most species of shellfish and crustaceans and many species of fish.

Because of the abundance of life and shallow waters in the swamps and marshes, they are important feeding grounds for wading birds, waterfowl, and many diving birds. Many of these birds also use the marshes and swamps as their primary habitats for nesting and brood rearing. Other functions of marshes and swamps include consolidation of sediments, shoreline stabilization, flood storage, filtration and assimilation of pollutants from upland runoff and others.

The extent of oil impacts on a marsh are a function of many factors, including the type of oil that is spilled, the point during the life cycle of various species during which it is spilled, and extent of contamination. Light oils have shorter persistence but much higher toxicity to both marsh plants and other organisms in the marsh. Heavy oils have much longer persistence but few acutely toxic impacts. Time of year is very important; spills during fall and winter are less damaging than other times both because the marsh vegetation is in a fairly dormant state and because there are juvenile life stages of fewer organisms present during this time of year. In spring, new growth appears, sloughing off the dead vegetation. Recovery of a marsh oiled during the winter is much more rapid than that of a marsh oiled during the spring, summer, or fall. Also, extent of contamination affects the short-term impact and recovery rates. Oil is more rapidly removed by natural processes from narrow, fringing marshes. Oil transported deep into broad expanses of marsh vegetation during spring tides or during storm or runoff events is isolated from daily flushing processes of tidal currents and waves; therefore, physical removal is very slow.

Sheltered tidal flats have high sensitivity because of high density of organisms and lower natural flushing rates. Floating pollutants are still partially removed by the rising tide, but to a lesser degree.

Highly sensitive areas are present in the extensive wetland areas behind the barrier islands, the majority of the shorelines along rivers, and almost all of the creek shorelines in the region. In addition, highly sensitive freshwater swamp and brackish marsh habitats are located throughout the area.

Moderately sensitive shoreline types include sheltered seawalls, riprap, shell beaches, sand beaches, and exposed tidal flats. The vegetation and animals vary with the type of shoreline. On sand beaches, shell beaches, and tidal flats, there is usually no vegetation and most of the fauna live in the sediment. If there is vegetation on the beaches, it is typically found above the high-tide line and would not be affected by a spill. Infauna found in the sand beaches includes amphipods, isopods, polychaete worms, and bivalves. Sand beaches are also a habitat for the many species of shorebirds and seabirds found in the area. Sheltered seawalls are usually colonized by large numbers of encrusting plants and animals, such as algae, barnacles, and snails. Beaches and seawall species populations are quite resilient to most spill impacts. This is in direct contrast to the slow recovery of marsh and swamp habitats when impacted by oil and hazardous material spills. Also, cleanup of beaches and seawalls is relatively easy, and oil adhering to sandy tidal flats is rapidly removed by tidal flushing. Along the outer coast of the barrier islands, an important consideration of the sensitivity of the coast to pollution is the use of the beaches as recreational resources. This factor increases the sensitivity sufficiently to warrant placing the beaches in the moderately sensitive category.

Moderately sensitive shorelines are mainly found on the outer shores and major inlets of the barrier islands, along portions of the AICW, and along shorelines of rivers where rocks or gravel are a component of the substrate, but in which finer-grained sediments prevail.

Shorelines of low sensitivity include exposed riprap, seawalls, and man-made structures. The vegetation on these shorelines consists primarily of brown and green algae. Associated fauna is dominated by barnacles and oysters, with several less abundant species. The diversity and abundance of plant and animal life on the seawalls is very low, and does not play a critical role in maintenance of the estuarine ecosystem. The ecological sensitivity, therefore, is also very low. In high-energy areas, wave wash and reflection prevents long-term persistence of most surface contaminants. In cases where a pollutant does impact the seawall or riprap, the wave energy would effectively remove it fairly rapidly.

Areas of minimum sensitivity are scattered mainly in small stretches throughout the AC's response area. These areas include the piers and seawalls of waterfront facilities, as well as other small stretches of low-sensitivity shoreline.

3. WILDLIFE AND AQUATIC RESOURCES.

Many species of animals that may be affected by a release of oil or hazardous chemicals found in this area (Tables A.IV.b.2 through A.IV.b.6). The susceptibility of each group of animals depends on the physical properties of the substance spilled, life stages of various organisms present in the spill impact area, and on the time of year since there are wide seasonal variations in the distribution and concentration of various species. Tables A.IV.b.2 through A.IV.b.6 give a listing of the species present; the seasons of the year each species is present within the study area; the seasons that these species reproduce; and their protection status, if applicable. Each table corresponds to a specific type of species, including mammals (Table A.IV.b.2), reptiles (Table A.IV.b.3), shellfish (Table A.IV.b.4), finfish (Table A.IV.b.6), and birds (Table A.IV.b.6).

These tables may be used for many purposes including spill contingency planning and predicting the resources that may be at risk during a petroleum or hazardous material spill in the COTP Charleston Response Area.

a. Mammals - The West Indian manatee and right whale are both seasonally occurring endangered species that occur in the response area. West Indian manatees are distributed along the coast, up to the lower reaches of the three rivers, and the AICW in summer and fall. Right whales, however, are found along the coast and lower harbor in the spring and fall. Bottlenose dolphins are found throughout the saltwater areas of the harbor waterways and along the outer coast year-round. Oil and most chemical spills will cause irritations of the mucous membranes (i.e., eyes and oral cavity) of these species upon prolonged exposure. These mammals may attempt to avoid contaminated areas in the event of a spill. Detailed discussions on the impact of oil spills and response recommendations are included in RPI Coastal Atlas.

b. Reptiles - All of the turtles annotated in Table A.IV.b.3 are either endangered or threatened species. The Atlantic loggerhead sea turtle nests on sand beaches during spring and summer on numerous beaches in the response area. This species is most susceptible to pollution during this time because many turtles gather on beaches for nesting, hence increasing the potential for contamination of eggs. The presence of nesting sea turtles raises the sensitivity of sand beaches to the higher category. The young, newly hatched turtles also are sensitive to a wide variety of

pollutants. In the event that a spill should impact the turtle nesting areas, the eggs and young could be relocated under the guidance of local, state, or federal authorities.

Atlantic green sea turtles and Kemp's (Atlantic) Ridley sea turtles, as well as the Atlantic loggerhead sea turtles, are distributed throughout the response area during spring, summer, and fall.

The American alligator is distributed throughout freshwater swamps and brackish marshes throughout the study area. The effects of pollutants on alligators could range from none to severe, depending on the material and quantity spilled.

c. Shellfish and Crustaceans - Much of coastal South Carolina is commercially important for several species of shellfish (quahogs, or clams, oysters, and other mollusks) and crustaceans (blue crabs, brown shrimp, white shrimp, and others). Environmental damages to brackish and salt marshes, intertidal zones, and subtidal habitats within the response area caused by oil and chemical spills could result in severe ecological and economic impacts on these species.

The more susceptible of these two types of organisms to impacts of oil and chemical spills are the shellfish, or bivalves, including quahogs and eastern oysters. As organisms that are either attached to or remain fairly sessile on the bottom, they are not able to escape from a polluted area. If the pollutant floats, the intertidal bivalves would be most affected by being covered by the pollutant with tidal action. Water-soluble pollutants, including the water-soluble fraction of oil spills, would affect all of the bivalves. As filter feeders, shellfish may concentrate any substance that is in the water column. Quahogs and eastern oysters are found throughout most of the coastal zone of South Carolina in intertidal and subtidal areas. Even though some shellfish areas are closed to harvesting because of fecal contamination, these beds still have importance as seedbeds for other areas.

Crustaceans, such as shrimp and crabs, would be relatively unaffected by surface slicks but may be affected by the water-soluble fractions of a spilled material. The most sensitive period would be in summer and fall when the larval and juvenile stages are present in inshore and nearshore waters. Crabs and shrimp are found in all subtidal areas of the response area and especially in estuarine areas behind the barrier islands. These marsh areas, as important nursery areas, have high concentrations of juvenile crabs and shrimp during much of the year.

d. Finfish - The finfish of the coastal zone of South Carolina can be divided into three categories according to water salinity regime: freshwater fish, brackish (estuarine) fish, and marine fish. However, it should be noted that there exists a substantial overlap of species from one salinity regime to another, especially with marine and estuarine species.

Freshwater fish include numerous species of sunfish, largemouth and smallmouth bass, white perch, several species of catfish, gar, American eels, and many others. These species are most sensitive during spawning periods, from May to August, and to spills of persistent chemicals that exhibit a tendency for biomagnification.

Fish that live in brackish, or estuarine, regions of the area also include many species

that are found in other salinity regimes of the area as well. These species include red drum, spot, croaker, American shad, spotted sea trout, shortnose sturgeon (an endangered species), several species of flounder, striped mullet, and many others.

Marine fish inhabit nearshore coastal waters and many spend at least some part of their life cycle in estuarine areas. Species of marine fish in the study area include king and Spanish mackerel, bluefish, several species of snapper and grouper, black sea bass, Florida pompano, and others. Acute and chronic impacts may result from oil and hazardous material spills that occur in restricted or enclosed water bodies and from very large spills. Marshes and creeks are common concentration areas for environmentally sensitive juvenile fish. Since spilled oil or chemical products tend to persist in these areas of relatively low flushing, it is suggested that the protection of these areas during a spill event be given priority consideration.

e. Birds - The coastal region of South Carolina provides rich habitat for a wide range of birds. Although there are large differences in the distribution of birds seasonally, birds are abundant during every season. Also, there are distinct trends in the areas frequented by certain groups of birds. These patterns in distribution and sensitivity to spilled oil are summarized briefly major bird groups below.

Waterfowl winter over along the South Carolina coast, normally from November to February. Sea ducks, including scaups and scoters, can form large flocks just offshore of the barrier islands, sometimes concentrating around inlets. Birds such as loons and grebes are more widely distributed, and they usually occur in very small numbers. These birds dive for food and spend much of the time on the open-water surface. Thus, they are highly susceptible to oil spills, even small slicks. Mergansers are another common diving duck that are individually scattered throughout marsh creeks and bays.

Wading birds as a group include herons, egrets, and ibises. They have long legs and feed on fish by wading in shallow water. They normally do not occur in large numbers except in localized areas for roosting and/or foraging. Wading birds appear to avoid oil and are seldom directly contaminated. However, loss of food or access to contaminated feeding areas could have serious impacts, especially when young are still dependent on adults for feeding.

Gulls and terns are common along the South Carolina coast, with several areas of heavier concentration. Many species are year-round residents, although some migrate here to breed in the spring and summer. Ingestion of contaminated food and oiling of eggs and young are the primary oil spill impacts.

The brown pelican is another bird that warrants special protection. They are very sensitive to oil spills because they dive from the air for food. They feed throughout the saltwater regions of the harbor and along shore but return each night to rookeries north and south of the harbor. Bird Key Stono is the largest pelican rookery on the coast of South Carolina.

Shorebirds are a large, complex group of birds that feed along beaches and tidal flats throughout the study area. Some shorebirds only "winter" here, although they start arriving as early as September and leave as late as May. These birds feed mostly at low tide, either along the barrier beaches or on the tidal flats fronting marshes in sheltered areas. Some shorebirds nest

in the area, notably Wilson's plover, willet, and American oystercatcher. Shorebirds are only moderately sensitive to direct oil spill impacts, because they generally avoid oiled areas, as long as there are other clean feeding areas available.

4. SPECIALLY PROTECTED AREAS.

a. Cape Romain National Wildlife Refuge. Cape Romain is located in Charleston County, South Carolina, about 20 miles northeast of Charleston. The Refuge includes 4,000 acres of high land and over 60,000 acres of salt marshes and open water. The salt marshes are interlaced with creeks that create a score of intertidally flooded islands. Islands in the Refuge that are not completely inundated by the tides include Marsh Island, Raccoon Key, Bulls Island, and Cape Island. Bulls Island (approximately 500 acres in size) contains freshwater ponds that provide habitat for alligators and wintering areas for thousands of waterfowl. The Refuge's impoundments, marshes, and beaches are used extensively by 29 species of marsh and wading birds and a variety of waterfowl. The most numerous species is the clapper rail with peak population of about 25,000 birds. Nesting by tricolored herons, snowy egrets, great egrets, and glossy ibis occurs on several of the Refuge's islands. The islands within the Refuge serve as nesting areas for thousands of pelicans and wading and shore birds during the period from February 15 through September 15. There are several endangered or threatened species of birds that have been documented to utilize areas in the Cape Romain National Wildlife Refuge. Additionally, its beaches are used heavily by the endangered loggerhead sea turtle for nesting.

Cape Romain, U.S. Fish and Wildlife Service, together with the Santee Coastal Reserve, S.C. Wildlife and Marine Resources, the Tom Yawkey Wildlife Center, Hobcaw Barony, and University of South Carolina make up the Santee Delta-Cape Romain unit of the Carolinian-South Atlantic Biosphere Reserve. These reserves are unique protected areas dedicated to helping discover solutions to human impacts on natural systems. In this unit, long-term research, conservation, and wildlife management are primary functions.

b. Capers Island. Capers Island lies immediately south of the Cape Romain National Wildlife Refuge and is owned and protected by the State of South Carolina. It contains 850 acres of highland, 214 acres of beach, 1090 acres of salt marsh, and over 100 acres of fresh and brackish water impoundments within the island. The island provides habitat for a variety of species including white-tailed deer, raccoons, alligators, loggerhead sea turtles, and numerous birds such as herons, egrets, ibis, bitterns, waterfowl, and songbirds.

c. The Santee Coastal Reserve. The Santee Coastal Reserve is a 23,024-acre area bordering the north boundary of the Cape Romain National Wildlife Refuge and extending to the south bank of the South Santee River. Due to the presence of almost every Lowcountry ecosystem including many impoundments, the Reserve supports a wide range of flora and fauna, including vast numbers of waterfowl during the winter months, shore birds and wading birds during the spring and summer months, alligators, deer, and others.

d. The Tom Yawkey Wildlife Center. The Tom Yawkey Wildlife Center consists of 20,000 acres located just north of the Santee Coastal Reserve and is made up of North and Cat Islands and the adjacent wetlands and waterways. It, like the Santee Coastal Reserve, supports vast numbers of waterfowl during the winter and wading and shore birds during spring and

summer in its 2000 acres of impoundments. Endangered loggerhead sea turtles nest extensively on the thirteen miles of undeveloped beaches on the islands.

e. Hobcaw Barony. The Hobcaw Barony is a 17,500-acre tract of land just north of Winyah Bay at Georgetown, which is owned by the University of South Carolina and managed by the Belle W. Baruch Foundation. Highlands, beaches, saltmarshes, and freshwater habitats within the property boundaries provide habitat for a wide diversity of terrestrial, avian, and aquatic species. North Inlet, which is located in Hobcaw Barony, is among the few pristine salt marsh ecosystems on the East Coast. It is a part of the Long-Term Ecological Research (LTER) Program of the National Science Foundation (NSF).

f. State Parks. State parks in the area, include Myrtle Beach State Park, Huntington Beach State Park, and Edisto Beach State Park. While these areas are protected primarily for recreational purposes, within each is found some high and moderate sensitivity habitats.

g. County Parks. There are a number of county parks in the COTP Charleston Response Zone. The two that are located closest to the most likely spill scenario area are Folly Beach County Park and Beachwalker Park County Park. As is the case with state parks, the primary reason for protection is recreational use, but sensitive habitats are located within their boundaries.

TABLE A.IV.b.1 - **CLASSIFICATION OF SHORELINE TYPES**

HIGH SENSITIVITY

Mangroves and marshes
Sheltered tidal flats

MODERATE SENSITIVITY

Sheltered rocky shores and seawalls
Exposed tidal flats
Gravel beaches and riprap
Mixed sand and gravel beaches
Coarse-grained sand beaches
Fine-grained sand beaches

LOW SENSITIVITY

Exposed, vertical rocky shorelines
Seawalls

NOTE: This information is provided here for general reference. For specific information, refer to latest environmental sensitivity index prepared by Research Planning, Inc., dated July 1996

TABLE A.IV.B.2 - SPECIES LIST AND SEASONALITY FOR MAMMALS FOUND IN THE COTP CHARLESTON RESPONSE AREA

<u>Species Name</u>	<u>Season Present*</u>				<u>Season Calving</u>			
	SP	S	F	W	SP	S	F	W
Bottlenose dolphin	x	x	x	x				
Pygmy sperm whale	x	x	x	x				
Right whale ¹	x			x				
Manatee ¹	x	x						

*(SP=spring; S=summer; F=fall; W=winter)

¹(Endangered)

²(Threatened)

NOTE: This information is provided here for general reference. For specific information, refer to latest environmental sensitivity index prepared by Research Planning, Inc., dated July 1996

**TABLE A.IV.B.3 - SPECIES LIST AND SEASONALITY FOR REPTILES FOUND IN
THE COTP CHARLESTON RESPONSE AREA**

<u>Species Name</u>	<u>Season Present*</u>				<u>Season Nesting</u>			
	SP	S	F	W	SP	S	F	W
American alligator	x	x	x	x				
Atlantic loggerhead sea turtle ²	x	x	x		x	x		
Atlantic green sea turtle ²	x	x	x					
Kemp's (Atlantic) ridley sea turtle ¹	x	x	x					

*(SP=spring; S=summer; F=fall; W=winter)

¹(Endangered)

²(Threatened)

NOTE: This information is provided here for general reference. For specific information, refer to latest environmental sensitivity index prepared by Research Planning, Inc., dated July 1996

**TABLE A.IV.B.4 - SPECIES LIST AND SEASONALITY FOR SHELLFISH AND
CRUSTACEANS FOUND IN THE COTP CHARLESTON RESPONSE
AREA**

<u>Species Name</u>	<u>Season Present*</u>				<u>Season Spawning*</u>			
	SP	S	F	W	SP	S	F	W
Quahog	x	x	x	x	x	x		
Blue Crab	x	x	x	x	x	x	x	
Brown Shrimp	x	x	x	x			x	x
White Shrimp	x	x	x	x	x	x		
American Oyster (eastern)	x	x	x	x	x	x		

*(SP=spring; S=summer; F=fall; W=winter)

¹(Endangered)

²(Threatened)

NOTE: This information is provided here for general reference. For specific information, refer to latest environmental sensitivity index prepared by Research Planning, Inc., dated July 1996

**TABLE A.IV.B.5 - SPECIES LIST AND SEASONALITY FOR FINFISH FOUND IN THE
COTP CHARLESTON RESPONSE AREA**

<u>Species Name</u>	<u>Season Present*</u>				<u>Season Spawning*</u>			
	SP	S	F	W	SP	S	F	W
American shad	X	X	X	X				
Atlantic croaker	X	X	X	X			X	X
Atlantic sturgeon	X	X	X	X	X			
Blueback herring	X	X	X	X				
Gulf kingfish	X	X	X	X		X		
Hickory shad	X	X	X	X				
Sea trout (weakfish)	X	X	X	X		X		
Shortnose sturgeon ¹	X	X	X	X	X			
Southern kingfish (whiting)	X	X	X	X		X		
Spot	X	X	X	X			X	X
Spotted sea trout	X	X	X	X	X	X	X	
Striped bass	X	X	X	X	X			
Summer flounder	X	X	X	X				X
Black drum	X	X	X	X				
Silver perch	X	X	X	X		X		
Southern flounder	X	X	X	X				X
Striped mullet	X	X	X	X	X	X	X	
White mullet	X	X	X	X	X	X	X	
Channel catfish	X	X	X	X				
White perch	X	X	X	X				
White catfish	X	X	X	X				
Black seabass	X	X	X		X			
Bluefish		X	X	X	X			
Cobia		X	X	X		X	X	
Florida pompano	X	X	X		X			
Red drum		X	X	X	X			
Sheepshead	X	X	X					
Spanish mackerel	X	X	X					
Tarpon	X	X	X					
Bluefish		X	X	X	X			
Red drum		X	X	X	X			
Southern flounder	X	X	X	X				X
Spotted sea trout	X	X	X	X	X	X	X	
Summer flounder	X	X	X	X				

*(SP=spring; S=summer; F=fall; W=winter)

¹(Endangered)

²(Threatened)

NOTE: This information is provided here for general reference. For specific information, refer to latest environmental sensitivity index prepared by Research Planning, Inc., dated July 1996

**TABLE A.IV.B.6 - SPECIES LIST AND SEASONALITY FOR BIRDS FOUND IN THE
COTP CHARLESTON RESPONSE AREA**

<u>Species Name</u>	<u>Season Present*</u>				<u>Season Nesting</u>			
	SP	S	F	W	SP	S	F	W
<u>Diving Birds</u>								
Least tern ²	x	x	x	x		x	x	
Royal tern		x	x	x	x	x	x	
Black skimmer	x	x	x	x		x	x	
Black tern	x		x					
Caspian tern	x	x	x	x		x	x	
Common tern	x	x	x			x	x	
Forster's tern	x	x	x	x				
Sandwich tern	x	x	x			x		
<u>Shorebirds</u>								
Black-bellied plover	x		x	x				
Greater yellowlegs	x		x	x				
Killdeer		x	x	x		x		
Least sandpiper	x		x	x				
Lesser yellowlegs	x		x	x				
Ruddy turnstone	x		x	x				
Sanderling	x		x	x				
Semipalmated plover	x		x	x				
Semipalmated sandpiper	x		x	x				
Short-billed dowitcher	x		x	x				
Western sandpipe	x		x	x				
Wilson's plover	x	x	x	x	x	x		
American oystercatcher	x	x	x	x	x	x		
Willet	x	x	x	x	x	x		

*(SP=spring; S=summer; F=fall; W=winter)

¹(Endangered)

²(Threatened)

NOTE: This information is provided here for general reference. For specific information, refer to latest environmental sensitivity index prepared by Research Planning, Inc., dated July 1996

TABLE A.IV.b.6 (cont.)

<u>Species Name</u>	<u>Season Present*</u>				<u>Season Nesting</u>			
	SP	S	F	W	SP	S	F	W
<u>Wading Birds</u>								
Great blue heron			X	X				
Great egret	X	X	X	X	X	X		
Little blue heron	X	X	X	X	X	X		
Louisiana heron	X	X	X	X	X	X		
Snowy egret	X	X	X	X	X	X		
Glossy ibis	X	X	X	X	X	X		
Great white heron	X	X	X	X				
Green heron	X	X	X	X	X	X		
Little blue heron	X	X	X	X	X	X		
Tricolor heron	X	X	X	X	X	X		
Snowy egret	X	X	X	X	X	X		
Black-crowned night heron	X	X	X	X	X	X		
Cattle egret	X	X			X	X		
White ibis	X	X	X	X	X	X		
<u>Waterfowl</u>								
Pied-billed grebe	X	X	X	X				
American widgeon		X	X					
Black scoter		X	X					
Common loon		X	X					
Greater scaup		X	X					
Horned grebe		X	X					
Lesser scaup		X	X					
Red-breasted merganser		X	X					
Surf scoter		X	X					
White-winged scoter		X	X					

*(SP=spring; S=summer; F=fall; W=winter)

¹(Endangered)

²(Threatened)

NOTE: This information is provided here for general reference. For specific information, refer to latest environmental sensitivity index prepared by Research Planning, Inc., dated July 1996

ENCL i TO TAB b TO APP IV TO ANNEX A TO THE CHARLESTON O&H ACP
COASTAL AREA ENVIRONMENTAL SENSITIVITY INDEX MAPS

The attached Environmental Sensitivity Maps for Charleston Harbor are included to assist the **Environmental Unit** identify and prioritize all environmentally sensitive areas and wildlife habitats. These maps and their keys are not intended to provide information about why given areas are sensitive and warrant protection, but simply to function as a tool in making initial decisions regarding boom placement, etc.

More comprehensive data may be obtained from detailed maps showing the sensitivity of various coastal environments based on the Environmental Sensitivity Index (ESI). A complete set of ESI maps are maintained at the USCG MSO and in the offices of the SC DHEC and SC DNR. This information is also available on CD-ROM.

A57 - Flagg Creek Entrance**Map 1**

Latitude: 32° 56' 36" N

Longitude: 79° 55' 24" W

NOAA Nav Chart: 11521, 11527

ESI Map: SC 24

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

9 - Sheltered Tidal Flats/Oyster Beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity - salt marsh both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons

Wading birds - nesting, spring and summer

Bottlenose dolphin - all seasons

Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Medium**Strategy:** 1200' of barrier boom across mouth of creek**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Boat ramp at Back River dam**AVAILABLE RESOURCES:** see Annex F

A58 - No Name Creek (AMOCO Petroleum Facility)**Map 1**

Latitude: 32°57' 56" N

Longitude: 79° 55' 04" W

NOAA Nav Chart: 11521, 11527

ESI Map: SC 24

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

10B - Freshwater Marshes

SHORELINE/HABITAT TO BE PROTECTED

High sensitivity - salt marsh both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons

Wading birds - nesting, spring and summer

Bottlenose dolphin - all seasons

Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Medium

Strategy: Deploy 200' of barrier boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom. Deploy absorbent boom in adjacent creeks.

COLLECTION POINTS:

AMOCO dock has boom in the water at all times, which may be used to assist in collection.

ACCESS TO AREAS:

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: North Charleston. Boat ramp at Back River dam**AVAILABLE RESOURCES:** see Annex F

A59 - Back River**Map 1**

Latitude: 32°58' 06" N

Longitude: 79° 55' 48" W

NOAA Nav Chart: 11521, 11527

ESI Map: SC 24

Agency/Point of Contact/Phone	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
BP/AMOCO	Gerald Campbell	(843) 881-5190 (wk) (843) 881-5251 (24 hr)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

10B - Freshwater Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity - brackish marsh both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons

Wading birds - nesting, spring and summer

Bottlenose dolphin - all seasons

Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:**

Strategy: Protect several small creeks on the South shore of Back River using 200' of barrier boom. There is no water flow through the dam. Water intake indicated is for AMOCO process water. Deploy diversion boom in a stepped pattern oriented to prevent contamination at dam and creating a collection point. Re-orient boom as product's trajectory changes.

COLLECTION POINTS: Back River dam may be used as collection point for land and water based equipment.

ACCESS TO AREAS:

Vehicular: ■

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: North Charleston. Boat ramp at Back River dam.

AVAILABLE RESOURCES: see Annex F

A61 - No Name Creek 2 (off Back River)**Map 1**

Latitude: 32 57' 54" N

Longitude: 79 55' 30" W

NOAA Nav Chart: 11527

ESI Map: SC 24

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

10B - Freshwater Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity - brackish marsh both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons

Wading birds - nesting, spring and summer

Bottlenose dolphin - all seasons

Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** High**Strategy:** Deploy 100' of barrier boom across mouth of creek. If conditions warrant, depoly boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Boat ramp at Back River dam

AVAILABLE RESOURCES: see Annex F

A62 - Snow Point Creek**Map 1**

Latitude: 32 56' 45" N

Longitude: 79 55' 54" W

NOAA Nav Chart: 11527

ESI Map: SC 24

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

10B - Freshwater Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity - brackish marsh both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons

Wading birds - nesting, spring and summer

Bottlenose dolphin - all seasons

Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** High

Strategy: Deploy 500' of exclusion boom across mouth of creek/marsh. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom. Line boom with sorbent.

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: North Charleston. Boat ramp at Black River dam

AVAILABLE RESOURCES: see to Annex F

A1 - Yellow House Creek**Map 2**

Latitude: 32 54' 26" N

Longitude: 79 55' 54" W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (803) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity - salt marsh both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons

Wading birds - nesting, spring and summer

Bottlenose dolphin - all seasons

Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:** One 500' section of barrier boom across the creek and two 100' sections of deflection boom at mouth of creek as depicted on map.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Virginia Avenue Park boat ramp**AVAILABLE RESOURCES:** see Annex F

A2 - Clouter Creek (North)**Map 2**

Latitude: 32 54' 23"N

Longitude: 79 56' 08"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh shoreline with some lower sensitivity shoreline because of Naval Weapons Stations operations.

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons
Wading birds - nesting, spring and summer
Bottlenose dolphin - all seasons
Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:**

One 500' section of barrier boom across the creek and two 100' sections of deflection boom at mouth of creek as depicted on map.

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS:

AVAILABLE RESOURCES: see Annex F

A2 - Clouter Creek (North)**Map 3**

Latitude: 32 54' 23"N

Longitude: 79 56' 08"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh shoreline with some lower sensitivity shoreline because of Naval Weapons Stations operations.

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons
Wading birds - nesting, spring and summer
Bottlenose dolphin - all seasons
Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:**

One 500' section of barrier boom across the creek and two 100' sections of deflection boom at mouth of creek as depicted on map.

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS:

AVAILABLE RESOURCES: see Annex F

C4 Westvaco Industrial Intake**Map 3**

Latitude: 32 53' 39"N

Longitude: 79 57' 56"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
Westvaco	Mr. Griffith	(843) 745-3326[wk]

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** N/A**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:****Booming Method:** **Degree of Protectability:****Strategy:**

Not a likely boom site; potential for 50' section of barrier boom as possible option

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS:

Available Resources: see Annex F

A5 - Filbin Creek**Map 3**

Latitude: 32 53' 30"N

Longitude: 79 58' 00"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:**

One 100' section of barrier boom across mouth of creek. One 200' section of collection boom as depicted on map

COLLECTION POINTS:

The most probable collection point would be at the mouth of the creek, both from waterside and landside; one 200' section of collection boom at Virginia Avenue boat ramp

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Virginia Avenue Park boat ramp**AVAILABLE RESOURCES:** see Annex F

A6 - No Name Creek (off Clouter Creek)**Map 4**

Latitude: 32 52' 30"N

Longitude: 79 56' 28"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (803) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:**

One 100' section of barrier boom as depicted on map

COLLECTION POINTS:

Nearest collection point is across Cooper River at Navy Piers M, N, P, R, S, and X

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Virginia Avenue Park boat ramp

AVAILABLE RESOURCES: see Annex F

A7 - Beresford Creek**Map 4**

Latitude: 32 51' 48"N

Longitude: 79 56' 15"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:** One 100' section of barrier boom as depicted on map**COLLECTION POINTS:**

Nearest collection point is across Cooper River at Navy Piers M, N, P, R, S, and X

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Virginia Avenue Park boat ramp**AVAILABLE RESOURCES:** see Annex F

A8 - Clouter Creek (South)**Map 4**

Latitude: 32 51' 24"N

Longitude: 79 56' 05"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
Charleston Naval Complex Redevelopment Authority (CNRDA)	LCDR Paul Rose	(843) 747-0010 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh shoreline with some lower sensitivity shoreline because of Naval Weapons Station operations.

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds -feeding, all seasons

Bottlenose dolphin -all seasons

Estuarine finfish, crustaceans, shellfish -all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:**

Strategy: One 800' section of barrier boom across mouth of creek; two 200' sections of deflection boom as depicted on map

COLLECTION POINTS:

Nearest collection point is across Cooper River at Navy Piers M, N, P, R, S, and X with 100' sections of collection boom at each pier as depicted on map

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Virginia Avenue Park boat ramp

AVAILABLE RESOURCES: see Annex F

A9 - Noisette Creek**Map 4**

Latitude: 32 52' 16"N

Longitude: 79 58' 02"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
Charleston Naval Complex Redevelopment Authority	LCDR Paul Rose	(843) 747-0010 (wk)
Hess Terminal Manager	Brad Brundage	(843) 554-1581

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

Limited amount of high-sensitivity salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds -feeding, all seasons

Bottlenose dolphin -all seasons

Estuarine finfish, crustaceans, shellfish -all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:****Strategy:** One 100' section of barrier boom across mouth of creek**COLLECTION POINTS:** Nearest collection point access via South Hess Terminal property. One 200' section of collection boom. Collection within creek proper if saturated

ACCESS TO AREAS:

Vehicular: 5

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Virginia Avenue Park boat ramp

AVAILABLE RESOURCES: see Annex F

C10 - Navy Marina**Map 5**

Latitude: 32 50' 51"N

Longitude: 79 56' 09"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
Charleston Naval Complex Redevelopment Authority	LCDR Paul Rose	(843) 747-0010 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** N/A**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:****Booming Method:** **Degree of Protectability:****Strategy:** Primarily an anchorage area; successful protection unlikely**COLLECTION POINTS:** Nearest collection point is just North of Shipyard Creek

ACCESS TO AREAS:

Vehicular: 5

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Access via South end of Naval Base. Virginia Avenue Park boat ramp

AVAILABLE RESOURCES: seeAnnex F

A11 - No Name Creek (off Cooper River)**Map 5**

Latitude: 32 49' 09"N

Longitude: 79 56' 07"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
Charleston Naval Complex Redevelopment Authority	LCDR Paul Rose	(843) 747-0010 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity salt marsh, both shorelines

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds - feeding, all seasons

Bottlenose dolphin - all seasons

Estuarine finfish, crustaceans, shellfish - all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:** One 100' section of barrier boom**COLLECTION POINTS:** Nearest collection points are EXXON Pier, Navy Manned Pier (just North of Shipyard Creek entrance), and the upper part of Shipyard Creek

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Virginia Avenue Park boat ramp

AVAILABLE RESOURCES: see Annex F

A12 - Newmarket Creek**Map 6**

Latitude: 32 48' 26"N

Longitude: 79 56' 08"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:** One 50' section of barrier boom. Tie off to wood pilings as depicted on map**COLLECTION POINTS:** If creek is saturated, then use creek itself as a natural collection point.**ACCESS TO AREAS:**

Vehicular: 5

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS:**AVAILABLE RESOURCES:** see Annex F

A13 - Vardell Creek**Map 6**

Latitude: 32 48' 00"N

Longitude: 79 55' 50"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:** One 50' section of barrier boom. Tie off to wood pilings as depicted on map**COLLECTION POINTS:** If creek is saturated, then use creek itself as a natural collection point.**ACCESS TO AREAS:**

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Access available from landside and waterside via road or boat ramp. It is possible to stage vac-trucks at Vardell Creek and also do waterside operations.**AVAILABLE RESOURCES:** see Annex F

A14 - Storm Drains**Map 6**

Latitude: 32 47' 13"N

Longitude: 79 55' 30"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
Charleston County Public Works	Mr. Rogers	(843) 745-2207

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** N/A**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:****Booming Method:** **Degree of Protectability:****Strategy:** Not a likely boom site. Potential for one 50' section of barrier boom.**COLLECTION POINTS:** N/A

ACCESS TO AREAS:

Vehicular: 5

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Access from waterside very feasible to boom if necessary, i.e. gasoline product.

AVAILABLE RESOURCES: see Annex F

A15 - Shutes Folly Island**Map 7**

Latitude: 32 56' 33"N

Longitude: 79 54' 44"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

Currently N/A; to be developed if deemed appropriate.

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Colonial waterbirds -nesting, spring and summer

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:** Noise cannon placed on island to scare birds away.**COLLECTION POINTS:** N/A**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island Yacht Club boat ramp**AVAILABLE RESOURCES:** see Annex F

C16 - Battery**Map 7**

Latitude: 32 46' 10"N

Longitude: 79 55' 45"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** N/A (seawall, riprap)**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:** N/A**Booming Method:** **Degree of Protectability:****Strategy:****COLLECTION POINTS:** N/A

ACCESS TO AREAS:

Vehicular: 5

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: US Coast Guard MSO and City Marina

AVAILABLE RESOURCES: see Annex F

C17 - James Island Yacht Club**Map 7**

Latitude: 32 45' 12"N

Longitude: 79 55' 06"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** N/A**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:****Booming Method:** **Degree of Protectability:****Strategy:** One 300' section of collection boom**COLLECTION POINTS:** Nearest collection point is within the Yacht Club.

ACCESS TO AREAS:

Vehicular: 5

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island Yacht Club boat ramp

AVAILABLE RESOURCES: see Annex F

A18 - Kushiwah Creek**Map 7**

Latitude: 32 45' 08"N

Longitude: 79 55' 29"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:** One 50' section of barrier boom across mouth of creek.**COLLECTION POINTS:** Nearest collection point is at the James Island Yacht Club.**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island Yacht Club boat ramp**AVAILABLE RESOURCES:** see Annex F

A15 - Shutes Folly Island**Map 8**

Latitude: 32 56' 33"N

Longitude: 79 54' 44"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

Currently N/A; to be developed if deemed appropriate.

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Colonial waterbirds -nesting, spring and summer

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:**Booming Method:****Degree of Protectability:****Strategy:** Possible Shortnose Sturgeon (SNS) habitat**PROTECTION STRATEGY:** Noise cannon placed on island to scare birds away.**COLLECTION POINTS:** N/A

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island Yacht Club boat ramp

AVAILABLE RESOURCES: see Annex F

B44 - Patriots Point**Map 8**

Latitude: 32 47' 23"N

Longitude: 79 54' 27"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

8A - Sheltered man-made structures

9 - Sheltered tidal flats/oyster beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED: **Site of popular State military museum**

Some high sensitivity salt marsh

State Maritime Museum - several moored vessels

WILDLIFE/RESOURCES TO BE PROTECTED: N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:** None**Booming Method:** Protection**Degree of Protectability:** High

Strategy: Deploy 2,000' of exclusion boom in potential high impact areas. Suggested boom length is insufficient to protect entire area; orient boom to receive maximum product impact. Re-orient boom as product's trajectory changes. Allow for watercraft traffic to pass through boomed area until product in vicinity.

COLLECTION POINTS: N/A

ACCESS TO AREAS:

Vehicular: 5

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Mount Pleasant, Charleston Co., SC. Boat ramp at Remley Point. Access from Coleman Blvd. (staging in marina/business parking areas possible)

AVAILABLE RESOURCES: see Annex F

C45 - Shem Creek**Map 8**

Latitude: 32 47' 21"N

Longitude: 79 53' 11"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

Some high sensitivity salt marsh and tidal flats, upstream
Commercial docks and piers

WILDLIFE/RESOURCES TO BE PROTECTED: N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:****Booming Method:** **Degree of Protectability:****Strategy:** If protected, place barrier boom across mouth of creek.**COLLECTION POINTS:** Numerous docks in the area may provide collection areas.

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS:

AVAILABLE RESOURCES: see Annex F

A46 - Crab Bank**Map 8**

Latitude: 32 46' 36"N

Longitude: 79 53' 02"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

3A - Fine-grained sand beaches

4 - Medium to coarse sand beaches

7 - Exposed tidal flats (sandy)

9 - Sheltered tidal flats/oyster beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED: High sensitivity-salt marsh and exposed tidal flats.

Sand beach

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Colonial waterbirds -nesting, spring and summer

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES: Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans**PROTECTION STRATEGY:****Booming Method:** Protection**Degree of Protectability:** Low

Strategy: Deploy 3,000' of deflection boom in a chevron pattern or stepped pattern oriented to prevent contamination from making contact with potential high impact areas. Suggested boom length is insufficient to protect entire area; orient boom to receive maximum product impact. Re-orient boom as product's trajectory changes. Set up a noise cannon to frighten birds away and prevent oiling.

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Northeast side of Charleston Harbor, adjacent to Mt. Pleasant, Charleston Co., SC. Boat ramp at Shem Creek Landing

AVAILABLE RESOURCES: see Annex F

C50 - Fort Johnson**Map 9**

Latitude: 32 45' 08"N

Longitude: 79 53' 58"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

6A - Gravel (shell) beaches

6B - Exposed riprap structures

8A - Sheltered man-made structures

SHORELINE/HABITAT TO BE PROTECTED: Bulkhead/riprap**WILDLIFE/RESOURCES TO BE PROTECTED:** None**ENDANGERED SPECIES:** None**PROTECTION STRATEGY:****Booming Method:** Protection**Degree of Protectability:** Medium

Strategy: Deploy 300' of exclusion across mouth of boat basin. Line boom with sorbent. Place double layer of boom. Protect/close salt water intakes on property; boom if possible.

COLLECTION POINTS: Small boat basin can be used as collection point (200' boom)**ACCESS TO AREAS:**

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Southwest end of James Island, Charleston Co., SC. SCDNR, USF&WS, NMFS and NOAA facility.

AVAILABLE RESOURCES: see Annex F

B51 - Fort Sumter (National Park Service)**Map 9**

Latitude: 32 45' 06"N

Longitude: 79 52' 30"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30, 31

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
US National Park Service	John Tucker Ann Childress Ernest K. Ralston	(843) 883-3123 (wk) (843) 849-7830 (hm) (888) 614-0672 (24 hr)

SHORELINE TYPE: (ESI Rank)

6A - Gravel (shell) beaches

6B - Exposed riprap structures

SHORELINE/HABITAT TO BE PROTECTED: ****National Historic Monument**** Riprap**WILDLIFE/RESOURCES TO BE PROTECTED:** ****Cultural Resource******ENDANGERED SPECIES:** None**PROTECTION STRATEGY:****Booming Method:** Protection**Degree of Protectability:** Low

Strategy: Deploy 1,500' of deflection boom in a stepped pattern oriented to prevent contamination from making contact. Suggested boom length is insufficient to protect entire area; orient boom to receive maximum product impact. Re-orient boom as product's trajectory changes. This area experiences strong tidal currents.

COLLECTION POINTS: N/A

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West of Fort Johnson (Southeast section of Charleston Harbor), Charleston, SC

Available Resources: see Annex F

A52 - Cummings Point**Map 9**

Latitude: 32 44' 34"N

Longitude: 79 52' 36"W

NOAA Nav Chart: 11521, 11523

ESI Map: SC 37

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

3A - Fine-grained sand beaches

7 - Exposed tidal flats (sandy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED: High sensitivity salt marsh and tidal flats. Sand beach**WILDLIFE/RESOURCES TO BE PROTECTED:**

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES: Possible Shortnose Sturgeon (SNS) habitat; Atlantic Loggerhead Turtle, Brown Pelicans**PROTECTION STRATEGY:****Booming Method:** Protection**Degree of Protectability:** Very Low

Strategy: Deploy 3,000' of deflection boom from Cummings Point to closest land across bay entrance (if possible) in a stepped pattern oriented to prevent contamination from making contact with potential high impact areas. Suggested boom length is insufficient to protect entire area; orient boom to receive maximum product impact. This area experiences strong tidal currents. Strengthen absorbent boom with wire fencing, or similar method. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom at the entrance to bay behind Cummings Point.

COLLECTION POINTS: None**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island, south side of entrance to Charleston Harbor, northern tip of Morris Island, Charleston, Co., SC. James Island Yacht Club boat ramp, City Marina boat ramp, boat lift at Fort Johnson

AVAILABLE RESOURCES: see Annex F

A53 - Parrot Point Creek**Map 9**

Latitude: 32 44' 15"N

Longitude: 79 53' 30"W

NOAA Nav Chart: 11521, 11522

ESI Map: SC 37

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

7 - Exposed tidal flats (sandy)

9 - Sheltered tidal flats/oyster beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Medium**Strategy:** Deploy 200' of exclusion boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island, Charleston Co., SC. James Island Yacht Club boat ramp, City Marina boat ramp, boat lift at Fort Johnson**AVAILABLE RESOURCES:** see Appendix I to Annex F

A54 - Schooner Creek**Map 9**

Latitude: 32 43' 44"N

Longitude: 79 53' 30"W

NOAA Nav Chart: 11521, 11522

ESI Map: SC 37

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

7 - Exposed tidal flats (sandy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Low**Strategy:** Deploy 800' of exclusion boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into creek away from the mouth.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island, Charleston Co., SC. James Island Yacht Club boat ramp, City Marina boat ramp, boat lift at Fort Johnson

AVAILABLE RESOURCES: see Annex F

A55 - Bass Creek**Map 9**

Latitude: 32 43' 40"N

Longitude: 79 52' 58"W

NOAA Nav Chart: 11521, 11522

ESI Map: SC 37

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

7 - Exposed tidal flats (sandy)

9 - Sheltered tidal flats/oyster beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Medium**Strategy:** Deploy 200' of exclusion boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island, Charleston Co., SC. James Island Yacht Club boat ramp, City Marina boat ramp, boat lift at Fort Johnson**AVAILABLE RESOURCES:** see Annex F

A47 - AICWW Entrance**Map 10**

Mount Pleasant/Sullivan's Island (East) - Charleston Co., SC

Latitude: 32 46' 07"N

Longitude: 79 51' 02"W

NOAA Nav Chart: 11524, 11521, 11518

ESI Map: SC 31

Trustee Agency/Manager:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

6A - Gravel (shell) Beaches

7 - Exposed Flats

9 - Sheltered Tidal Flats/Oyster Beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED: High sensitivity-salt marsh and tidal flats**WILDLIFE/RESOURCES TO BE PROTECTED:**

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES: Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans**PROTECTION STRATEGY:****Booming Method:** Deflect**Degree of Protectability:** Low

Strategy: Utilize open water containment strategies; VOSS, skimmers, water barriers, etc. Deploy 2000' of diversion boom in a stepped pattern oriented to direct oil to Fort Moultrie Dock or boat ramp. Establish collection point at apex of boom. Re-orient boom as product's trajectory changes. Allow for watercraft traffic to pass through boomed area until product is in vicinity.

COLLECTION POINTS: Nearest collection point is Fort Moultrie Dock

ACCESS TO AREAS:

Vehicular:

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Mt. Pleasant/Sullivan's Island-East End. Fort Moultrie

AVAILABLE RESOURCES: see to Annex F

C48 - Tolers Cove Marina**Map 10**

Latitude: 32 47' 21"N

Longitude: 79 53' 11"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 31

Trustee Agency/Manager:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

8A - Sheltered, solid man-made structure

SHORELINE/HABITAT TO BE PROTECTED: Private Marina**WILDLIFE/RESOURCES TO BE PROTECTED:****ENDANGERED SPECIES:****PROTECTION STRATEGY:****Booming Method:** Protection**Degree of Protectability:** High**Strategy:** Deploy 600' of sorbent boom at mouth of marina . Allow for watercraft traffic to pass through boomed area until product reaches area.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Mount Pleasant at Ben Sawyer Bridge, Charleston, SC. Private Marina.

AVAILABLE RESOURCES: see Annex F

B49 - Fort Moultrie (National Park Service) Map 10

Latitude: 32 45' 36"N

Longitude: 79 51' 12"W

NOAA Nav Chart: 11521, 11518

ESI Map: SC 31

Trustee Agency/Manager:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
US National Park Service	John Tucker Ann Childress Ernest K. Ralston	(843) 883-3123 (wk) (843) 883-3123 (wk) (888) 614-0672 (24 hr)

SHORELINE TYPE: (ESI Rank)

7 - Exposed Tidal Flats

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED: None**ENDANGERED SPECIES:** None

PROTECTION STRATEGY: No protection possible for Fort on harbor side of island; no protection required for boat dock on ICW side of island. Utilize open water containment and collection strategies well off shore. This location experiences dangerous currents and/or surf.

COLLECTION POINTS: Boat ramp may be used as collection point for AICWW Entrance (site A47) using 200' collection boom.

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Sullivan's Island, South End, Charleston CO.

AVAILABLE RESOURCES: See Annex F

A23 - Horlbeck Creek**Map 13**

Latitude: 32°52' 41"N

Longitude: 79° 50' 39"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 24

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

9 - Sheltered Tidal Flats/Oyster Beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

Terrestrial mammals and waterfowl

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Low to Medium

Strategy: Deploy 600' of exclusion boom between the island near the mouth of the creek and the South shore. Deploy 100' of exclusion boom between the island and the North shore. If conditions warrant, deploy several hundred yards of boom into the creek, away from the mouth.

COLLECTION POINTS: None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Wando River, Charleston Co. South of Highway 41 bridge. Cainhoy, SC

AVAILABLE RESOURCES: see Annex F

A24 - Foster Creek**Map 13**

Latitude: 32 51' 54"N

Longitude: 79 51' 41"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 31

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

9 - Sheltered Tidal Flats/Oyster Beds (muddy)

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

Wading birds - nesting grounds

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Low to Medium**Strategy:** Deploy 600' of exclusion boom across creek near the mouth.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Wando River, just south of Horlbeck Creek, Charleston, Co.

AVAILABLE RESOURCES: see Annex F

A19 - Nowell Creek**Map 14**

Latitude: 32° 52' 39"N

Longitude: 79° 52' 30"W

NOAA Nav Chart: 11521

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:**

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:****Degree of Protectability:****Strategy:**

600' of barrier boom as close to the mouth as possible

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS:

AVAILABLE RESOURCES: see Annex F

A20 - No Name Creek (off Nowell Creek)**Map 14**

Latitude: 32 52' 59"N

Longitude: 79 52' 28"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 24

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr)
SC Department of Natural Resources	Priscilla Wendt	(803) 896-4111 (wk) (800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican, Sea Turtles

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** High**Strategy:** Deploy 200' of barrier boom across mouth of creek if protection of Nowell Creek is ineffective. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS:**AVAILABLE RESOURCES:** see Annex F

A21 - Hopewell Creek**Map 14**

Latitude: 32 53' 53"N

Longitude: 79 52' 52"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 24, 25

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 935-6323 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

3 - Fine-grained Sand Beaches

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats and fine-grained sand beaches

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Medium to High**Strategy:** Deploy 200' of exclusion boom across mouth of creek if protection at mouth of Nowell Creek is not effective. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Nowell Creek, Cainhoy, SC.

AVAILABLE RESOURCES: see Annex F

A22 - Martin Creek**Map 14**

Latitude: 32°54' 02"N

Longitude: 79° 53' 28"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 24

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican, Sea Turtles

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** High**Strategy:** Deploy 200' of barrier boom across mouth of creek if protection of Nowell Creek is ineffective. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Nowell Creek, Cainhoy, Berkeley Co., SC**AVAILABLE RESOURCES:** see Annex F

A25 - Ralston Creek**Map 16**

Latitude: 32° 52' 01"N

Longitude: 79° 53' 34"W

NOAA Nav Chart: 11521, 11527

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

3 - Fine-grained sand beaches

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats, sand beaches

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican, Sea Turtles

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Low to Medium**Strategy:** Deploy 200' of exclusion boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: East Bank tributary of Wando River, Cainhoy, Berkely Co., SC**AVAILABLE RESOURCES:** see Annex F

A26 - Rathall Creek**Map 16**

Latitude: 32°51' 36"N

Longitude: 79°53' 21"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

3 - Fine-grained sand beaches

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats, sand beaches

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding/nesting, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

Terrestrial mammals

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Brown Pelican, Sea Turtles

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Low to Medium**Strategy:** Deploy 300' of exclusion boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Wando River, North of I-26 Bridge, Charleston Co., SC**AVAILABLE RESOURCES:** see Appendix I to Annex F

A27 - Hobcaw Creek

Map 17

Latitude: 32 49' 33"N

Longitude: 79 53' 36"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

<u>Agency/Point of Contact/Phone:</u>	<u>Contact:</u>	<u>Phone No:</u>
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (803) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

3 - Fine-grained sand beaches

9 - Sheltered tidal flats/oyster beds (muddy)

Man-made structures

SHORELINE/HABITAT TO BE PROTECTED: **Historical Site**

High sensitivity-salt marsh and tidal flats

Many private docks

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding/nesting, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles

PROTECTION STRATEGY:

Booming Method: Protection

Degree of Protectability: Low to Medium

Strategy: Deploy 400' of exclusion boom across mouth of creek. Alternatively, deploy 900' of exclusion boom from Wando Terminal boat dock to Buoy #6 and 1800' from Buoy #6 to Hobcaw Point. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. Allow for watercraft to pass through boomed area until product is in vicinity.

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicle:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Wando River, just south of Wando Terminal, Mt. Pleasant, Charleston Co., SC

AVAILABLE RESOURCES: see Annex F

A28 - Molasses Creek**Map 17**

Latitude: 32°49' 02"N

Longitude: 79° 54' 06"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

6B - Exposed rip-rap structures

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats

Many private docks

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Medium**Strategy:** Deploy 200' of exclusion boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. 200' of barrier boom across creek near mouth**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Wando River, just north of Remley Point and south of Wando Terminal, Mt. Pleasant, Charleston Co., SC**AVAILABLE RESOURCES:** see Annex F

B29 - Drayton Hall**Map 18**

Latitude: 32° 52' 14"N

Longitude: 80° 04' 11"W

NOAA Nav Chart: 11521

ESI Map: SC 29

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE/HABITAT TO BE PROTECTED: N/A**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:** ** Historic Site **.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular: ■

Helicopter:

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Access from Highway 61, West Ashley; on west bank of Ashley River. Private boat ramp in Drayton on the Ashley subdivision.

AVAILABLE RESOURCES: see Annex F

A30 - Church Creek Map 18

Latitude: 32° 50' 24"N

Longitude: 80° 02' 14"W

NOAA Nav Chart: 11521

ESI Map: SC 29

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:

100' of barrier boom across mouth of creek

COLLECTION POINTS: None

ACCESS TO AREAS:

Vehicle:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Pierpont, East Bank tributary to Ashley River, Charleston Co. SC. SR 61 Bridge crosses creek 0.75 miles upstream from creek mouth; private boat ramp in Drayton subdivision just North of railroad bridge; public boat ramp across Ashley River in Wando Woods subdivision (Flynn Street).

AVAILABLE RESOURCES: see Annex F

A31 - Bulls Creek**Map 19**

Latitude: 32 49' 35"N

Longitude: 80 01' 11"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 29

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (803) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

9 - Sheltered tidal flats/oyster beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED: ****Historic Site****

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:**

Strategy: Deploy 200' of barrier boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom. Deploy absorbent boom in adjacent creeks.

COLLECTION POINTS: None**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Ashley River, Ashley Hall area, south of I-526 bridge, Charleston Co., SC. County Park Boat Landings (Duncan's Marina, Pierpont Boat Landing)

AVAILABLE RESOURCES: see Annex F

A32 - No Name Creek (off Ashley River)**Map 19**

Latitude: 32°49' 24"N

Longitude: 80° 01' 01"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 29

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:**

Strategy: Deploy 100' of barrier boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom. Deploy absorbent boom in adjacent creeks.

COLLECTION POINTS: None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank tributary of Ashley River, Ashley Hall area, south of I-526 bridge, Charleston Co., SC. County Park Boat Landings (Duncan's Marina, Pierpont Boat Landing)

AVAILABLE RESOURCES: see Annex F

A33 - Brickyard Creek**Map 19**

Latitude: 32° 50' 05"N

Longitude: 80°00' 18"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 29

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

9 - Sheltered tidal flats/oyster beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:**

Strategy: Deploy 500' of barrier boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom. Deploy absorbent boom in adjacent creeks.

COLLECTION POINTS: None**ACCESS TO AREAS:**

Vehicular:

Helicopter: ■

Boat: ■

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: North Charleston tributary of Ashley River, Charleston, Co., SC. County Park Boat Landings (Duncan's Marina, Pierpont Boat Landing)

AVAILABLE RESOURCES: see Annex F

A34 - Orangegrove Creek**Map 21**

Latitude: 32 47' 58"N

Longitude: 79 58' 36"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (803) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:****Strategy:** Deploy 700' of barrier boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom.**COLLECTION POINTS:**

Nearest collection points are at Citadel Boat Basin and at former railroad trestle across Ashley River.

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: St. Andrewa Paarish, near Charlestowne Landing, East Bank tributary of Ashley River, Charleston, Co., SC.**AVAILABLE RESOURCES:** see Annex F

A35 Oldtown Creek**Map 21**

Latitude: 32 47' 55"N

Longitude: 79 58' 39"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:****Strategy:** Deploy 100' of barrier boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. If conditions prevent the establishment of exclusion boom, set diversion or deflection boom.**COLLECTION POINTS:**

Nearest collection points are at Citadel Boat Basin and at former railroad trestle across Ashley River.

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: St. Andrewa Parish, near Charlestowne Landing, East Bank tributary of Ashley River, Charleston, Co., SC.**AVAILABLE RESOURCES:** see Annex F

A36 - Wappoo Creek, Ashley River**Map 22**

Latitude: 32 46' 11"N

Longitude: 79 57' 29"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (803) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

6B - Exposed rip-rap

8A - Sheltered man-made structures

9 - Sheltered tidal flats/oyster beds (muddy)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Deflection**Degree of Protectability:**

Strategy: Deploy multiple 500' sections of deflection boom on North side of creek in a stepped pattern oriented to prevent contamination from making contact with shore. Re-orient boom as product's trajectory changes. Allow for watercraft traffic to pass through boomed area until product is in vicinity. This area experiences strong tidal currents.

COLLECTION POINTS:

Boat landing on North side of creek, underneath Wappoo Cut Bridge

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Ashley/James Island, Charleston Co., SC. Boat ramp at Riverland Terrace Fire Station; boat ramp at Wappoo Cut Bridge; boat ramp at Ripley Light Marina.

AVAILABLE RESOURCES: see Annex F

A38 - Dill Creek**Map 22**

Latitude: 32 45' 45"N

Longitude: 79 57' 02"W

NOAA Nav Chart: 11518, 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (803) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Deflection**Degree of Protectability:** High**Strategy:** Deploy 100' of exclusion boom on across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None**ACCESS TO AREAS:**

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island (NE), Charleston Co., SC. Boat ramp at Riverland Terrace Fire Station; boat ramp at Wappoo Cut Bridge; boat ramp at Ripley Light Marina.**AVAILABLE RESOURCES:** see Annex F

C39 - Ripley Light Marina**Map 22**

Latitude: 32 46' 39"N

Longitude: 79 57' 39"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** Marina**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:****Booming Method:** Protection/deflection**Degree of Protectability:** Good**Strategy:** 200' of collection boom at marina entrance**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Boat ramp at marina (onto Albemarle off Folly, then left on Ashley Drive)

AVAILABLE RESOURCES: see Annex F

C40 Ashley Marina**Map 22**

Latitude: 32 46' 57"N

Longitude: 79 57' 25"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** Marina**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:** None**Booming Method:** **Degree of Protectability:**
Strategy:**COLLECTION POINTS:**

Nearest collection point at City Marina

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Boat ramp at City Marina. Access from Lockwood Ave (staging in parking area possible)

AVAILABLE RESOURCES: see Annex F

C41 - City Marina**Map 22**

Latitude: 32 46' 48"N

Longitude: 79 57' 11"W

NOAA Nav Chart:

ESI Map: SC

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** Marina**WILDLIFE/RESOURCES TO BE PROTECTED:** N/A**ENDANGERED SPECIES:** N/A**PROTECTION STRATEGY:** None**Booming Method:** **Degree of Protectability:**
Strategy:**COLLECTION POINTS:**

400' of collection boom at marina opening to direct oil into marina

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Boat ramp at City Marina. Access from Lockwood Ave (staging in marina/business parking areas possible)

AVAILABLE RESOURCES: see Annex F

A42 - Plum Island Creek**Map 22**

Latitude: 32 45' 38"N

Longitude: 79 56 48"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** High**Strategy:** Deploy 100' of exclusion boom on across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: West Bank of Ashley River, between James Island Yacht Club and Wappoo Creek Entrance, Charleston Co., SC. Boat ramp at Riverland Terrace Fire Station; boat ramp at Wappoo Cut Bridge; boat ramps at City Marina and Ripely Light Marina.

AVAILABLE RESOURCES: see Annex F

A43 - James Island Creek**Map 22**

Latitude: 32 45' 28"N

Longitude: 79 56 39"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Protection**Degree of Protectability:** Medium**Strategy:** Deploy 500' of exclusion boom on across mouth of creek. If conditions warrant, deploy boom several hundred yards into the creek, away from the mouth. Allow for watercraft traffic to pass through boomed area until product in vicinity.**COLLECTION POINTS:** None

ACCESS TO AREAS:

Vehicular:

Helicopter: 5

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: James Island, West Bank of Ashley River, upstream from James Island Yacht Club, Charleston Co., SC. Boat ramp at Riverland Terrace Fire Station; boat ramp at Wappoo Cut Bridge; boat ramps at City Marina and Ripley Light Marina.

AVAILABLE RESOURCES: see Annex F

A56 - Colonial Lake Intake**Map 22**

Latitude: 32 46' 32"N

Longitude: 79 56' 49"W

NOAA Nav Chart: 11521, 11524

ESI Map: SC 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)
Charleston County Public Works	Jim Rogers	(843) 745-2207

SHORELINE TYPE: (ESI Rank)**SHORELINE/HABITAT TO BE PROTECTED:** N/A**WILDLIFE/RESOURCES TO BE PROTECTED:**

Gulls, Wading birds-feeding, all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES: Brown Pelicans**PROTECTION STRATEGY:** Close intake. Intake to this lake is normally closed. In case of a spill, ensure that intake is closed.**COLLECTION POINTS:** Closure located on Ashley Ave outfall adjacent to South end of Lockwood Ave.

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat:

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Broad Street and Chisolm Street, Charleston, SC

AVAILABLE RESOURCES: see Annex F

A37 - Wappoo Creek, Elliott Cut**Map 23**

Latitude: 32 46' 04"N

Longitude: 79 58' 59"W

NOAA Nav Chart: 11518, 11521, 11524

ESI Map: SC 29, 30

Agency/Point of Contact/Phone:	Contact:	Phone No:
SC Department of Health and Environmental Control	Chris Staton	(803) 253-6488 (24 hr) (888) 481-0125 (24 hr) (803) 896-4111 (wk)
SC Department of Natural Resources	Priscilla Wendt	(800) 922-5431 (24 hr) (843) 762-5068 (wk)

SHORELINE TYPE: (ESI Rank)

6B - Exposed rip-rap

8A - Sheltered man-made structures

10A - Salt and Brackish Water Marshes

SHORELINE/HABITAT TO BE PROTECTED:

High sensitivity-salt marsh and tidal flats

WILDLIFE/RESOURCES TO BE PROTECTED:

Ospreys, diving birds, shorebirds, wading birds-feeding, all seasons

Bottlenose dolphin-all seasons

Estuarine finfish, crustaceans, shellfish-all seasons

ENDANGERED SPECIES:

Possible Shortnose Sturgeon (SNS) habitat, Sea Turtles, Brown Pelicans

PROTECTION STRATEGY:**Booming Method:** Deflection**Degree of Protectability:**

Strategy: Deploy 200' sections of exclusion boom across mouth of creek. If conditions warrant, deploy boom several hundred yards into creek away from the mouth. Deploy 100' sections of diversion boom at fire house boat ramp in a stepped pattern oriented to prevent contamination and/or creating a collection point. This location experiences strong tidal currents.

COLLECTION POINTS:

Boat landing on South side of creek, at the firehouse boat ramp/landing

ACCESS TO AREAS:

Vehicular: 5

Helicopter:

Boat: 5

Aircraft:

ACCESS/DIRECTIONS/STAGING AREAS: Johns Island, Charleston Co., SC. Boat ramp at Riverland Terrace Fire Station; boat ramp at Wappoo Cut Bridge; boat ramp at Ripley Light Marina.

AVAILABLE RESOURCES: see Appendix I to Annex F

APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP RESPONSE ORGANIZATION AND POLICIES

Reference: (a) 40 CFR 300, National Contingency Plan (NCP)
(b) PL 101-380, Oil Pollution Act of 1990 (OPA 90)

1. GENERAL. OPA 90 created a comprehensive prevention, response, liability, and compensation regime for dealing with vessel and facility generated pollution. OPA 90 also required that Area Committees be established to plan for a coordinated community response to an oil discharge or a hazardous substance release. To accomplish this, OPA 90 required that the committees have cognizant Federal, State, and local government agency representation.
2. RESPONSE TEAMS. The National Response Team (NRT) coordinates the activities of the Regional Response Team (RRT), which in turn oversees and assists the Area Committees.
3. FEDERAL ON-SCENE COORDINATOR. For spill or release response activities, federal response is coordinated through a single, pre-designated agent, the Federal On-Scene Coordinator (FOSC). The FOSC reports to, and receives advice from the regional and district offices of the primary advisory agencies.
4. STATE ON-SCENE COORDINATOR. When operating under the federal response plan the State On-Scene Coordinator (SOSC) assists the FOSC in responding to and mitigating spills and releases. Normally vested with the authority to permit response activities and require certain precautions within the state's boundaries, the SOSC is critical to the success of any response action.

TAB a TO APP V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
NATIONAL RESPONSE SYSTEM

1. GENERAL. The National Response System (NRS) was developed to coordinate all government agencies with responsibility for environmental protection, in a focused response strategy for the immediate and effective cleanup of an oil spill or hazardous substance release. The NRS is a three tiered response and preparedness mechanism that supports the predesignated Federal On-Scene Coordinator (FOSC) in organizing national, regional, local government agencies, industry, and the responsible party during response.
2. NRS SUPPORT. The NRS supports the responsibilities of the FOSC, under the direction of the Federal Water Pollution Control Act's federal removal authority. The FOSC plans and coordinates response strategy on scene, using the support of the National Response Team (NRT), Regional Response Team (RRT), Area Committees, and responsible parties as necessary, to supply the needed trained personnel, equipment, and scientific support to complete an immediate and effective response to any oil spill or hazardous substance release.
3. NRS CONCEPT OF OPERATIONS. The NRS is designed to support the FOSC and facilitate responses to a discharge or threatened discharge of oil or a hazardous substance. The NRS is used for all spills, including a Spill of National Significance (SONS). When appropriate, the NRS is designed to incorporate a unified command and control support mechanism consisting of the FOSC, the State's Incident Manager, and the Responsible Party's Incident Manager. The unified command structure allows for a coordinated response effort that takes into account the Federal, State, local and responsible party concerns and interests when implementing the response strategy. A unified command establishes a forum for open, frank discussions on problems that must be addressed by the parties with primary responsibility for oil and hazardous substance discharge removal. A unified command helps to ensure a coordinated, effective response is carried out and that the particular needs of all parties involved are taken into consideration. The FOSC has the ultimate authority in a response operation and will exert this authority only if the other members of the unified command are not present or are unable to reach consensus within a reasonable time frame. When a unified command is used, a Joint Operations Center and Joint Information Bureau shall be established. The Joint Operations Center should be located near and convenient to the site of the discharge. All responders (Federal, State, local and private) should be incorporated into the FOSC's response organization at the appropriate level.
4. SPILLS OF NATIONAL SIGNIFICANCE. A Spill Of National Significance (SONS) is that rare, catastrophic spill event which captures the nation's attention due to its actual damage or significant potential for adverse environmental impact. A SONS is defined as a spill which greatly exceeds the response capability at the local and regional levels and which, due to its size, location, and actual or potential for adverse impact on the environment is so complex, it requires extraordinary coordination of Federal, State, local and private resources to contain and clean up. Only the Commandant of the Coast Guard or the Administrator of the EPA can declare a SONS. The response to a SONS event must be a coordinated response that fully integrates the FOSC's response organization with the SONS response organization.

ENCL i TO TAB a TO APP V TO ANNEX A TO THE CHARLESTON O&H ACP
NATIONAL RESPONSE TEAM MEMBERSHIP

Reference: (a) 40 CFR 300.175, National Contingency Plan

1. U. S. Coast Guard (USCG) - *Vice Chair*
2. U. S. Environmental Protection Agency (USEPA) - *Chair*
3. Federal Emergency Management Agency (FEMA)
4. Department of Defense (DOD)
 - a. U. S. Army Corps of Engineers (USACE)
 - b. U. S. Navy (USN)
5. Department of Energy (DOE)
6. U. S. Department of Agriculture (USDA)
 - a. Forest Service
 - b. Agriculture Research Service (ARS)
 - c. Soil Conservation Service (SCS)
 - d. Animal and Plant Health Inspection Service (APHIS)
 - e. Food Safety and Inspection Service (FSIS)
7. Department of Commerce (DOC)
 - a. National Oceanographic and Atmospheric Administration (NOAA)
 - (i) National Marine Fisheries Service (NMFS)
 - (ii) National Weather Service (NWS)
8. Health and Human Services (HHS)
 - a. U. S. Public Health Services (USPHS)
 - b. Agency for Toxic Substance and Disease Registry (ATDSR)
 - c. Centers for Disease Control (CDC)
 - d. Food and Drug Administration (FDA)
 - e. Health Resources and Services Administration (HRSA)
 - f. National Institutes for Environmental Health Sciences (NIEHS)
9. Department of Justice (DOJ)
10. Department of Labor (DOL)
 - a. Occupational Safety and Health Act (OSHA) Enforcement

11. Department of Transportation (DOT)
 - a. Research and Special Programs Administration (RSPA)
12. Department of State (DOS)
13. Department of the Interior (DOI)
 - a. U. S. Fish and Wildlife Service (USF&WS)
 - b. U. S. Geological Survey (USGS)
 - c. Bureau of Land Management
 - d. Minerals Management Service (MMS)
 - e. Bureau of Mines
 - f. Office of Surface Mining
 - g. National Park Service
 - h. Bureau of Reclamation
 - i. Bureau of Indian Affairs
 - j. Office of Territorial Affairs
14. Nuclear Regulatory Commission (NRC)
15. General Services Administration (GSA)
16. National Response Center (NRC)

ENCL ii TO TAB a TO APP V TO ANNEX A TO THE CHARLESTON O&H ACP
REGIONAL RESPONSE TEAM MEMBERS AND ORGANIZATIONS

1. **U. S. COAST GUARD (USCG)**

Captain W. Fells, <i>Co-chair</i>	(305) 536-5651
Chief, Marine Safety Division	(305) 536-5091 fax
Seventh Coast Guard District	(305) 536-5611 24hr
Brickell Plaza	
Federal Building, Room 908	
909 SE First Avenue	
Miami, FL 33131-3050	

2. **U. S. ENVIRONMENTAL PROTECTION AGENCY (USEPA)**

Mr. Myron D. Lair, <i>Co-chair</i>	(404) 562-8725
Chief, Emergency Response and	(404) 347-4464 fax
Removal Branch	
Federal Region IV	
345 Courtland Street, NE	
Atlanta, GA 30365	

3. **U. S. DEPARTMENT OF AGRICULTURE/FOOD & NUTRITION SERVICE**

Mr. Dick Dees	(404) 562-1911
Food & Nutrition Service	(404) 730-2643 fax
77 Forsyth St, SW	
Suite 112	
Atlanta, GA 30303	

4. **U. S. DEPARTMENT OF COMMERCE/NATIONAL OCEANOGRAPHIC & ATMOSPHERIC ADMINISTRATION (NOAA)**

CDR Gary Petrae	(206) 526-6949
Scientific Support Coordination Branch	(206) 526-6329 fax
7600 Sand Point Way NE	
Seattle, WA 98115	

5. **U. S. DEPARTMENT OF DEFENSE/DEPARTMENT OF ARMY (USA)**

Mr. Kelley Shields	(404) 362-7536
HQ, Second U. S. Army	(404) 362-3406 fax
Attn: AFKD-OPO	
Ft. Gillem	
Forest Park, GA 30050-7000	

6. **U. S. DEPARTMENT OF ENERGY (DOE)**

Ms. Christina T. Edwards
Radiation Protection and Emergency Mgmt (404) 725-7723 fax
Savannah River Field Office
P. O. Box A
Aiken, SC 29802

7. **U. S. DEPARTMENT OF HEALTH AND HUMAN SERVICES/PUBLIC HEALTH SERVICE (USPHS)**

Mr. Gary J. Simmons (404) 331-5879
Division of Preventive Health (404) 331-2056
Services, USPHS
101 Marietta Tower, Suite 1106
Atlanta, GA 30323

8. **U. S. DEPARTMENT OF INTERIOR/FISH & WILDLIFE SERVICE (USF&WS)**

Mr. James H. Lee (404) 331-4524
Regional Environmental Officer (REO) (404) 331-1736 fax
Office of Environmental Affairs
Russel Federal Building, Room 306
75 Spring Street, S.W.
Atlanta, GA 30303

9. **U. S. DEPARTMENT OF JUSTICE (DOJ)**

Mr. Bob Homiak (202) 514-5485
(all actions other than vessel spills)
Environmental Enforcement Section
Benjamin Franklin Station
U. S. Department of Justice
Room 1644 A, P. O. Box 7611
Washington, DC 20044

Mr. David V. Hutchinson (202) 616-4126
(vessel spills only)
Admiralty Section
U. S. Department of Justice
P. O. Box 14271
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10. **U. S. DEPARTMENT OF LABOR (DOL)/OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)**

Mr. Jim Drake
Asstistant Regional Administrator (404) 347-0181 fax
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11. **U. S. DEPARTMENT OF TRANSPORTATION (DOT)**

Mr. Grady Hoffman (404) 562-3800
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12. **FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)**

Mr. Doug Wegner (770) 220-5482
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1371 Peachtree Street, NE
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13. **GENERAL SERVICES ADMINISTRATION (GSA)**

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14. **NUCLEAR REGULATORY COMMISSION (NRC)**

Mr. Ken E. Brockman (301) 415-7481
Incident Response Branch (301) 492-7142 fax
Office of Analysis & Evaluation
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Mail Stop: MNBB 3602
Washington, DC 20555

15. STATE OF SOUTH CAROLINA

Mr. Ronald W. Kinney, Director
Division of Waste Assessment
& Emergency Response, South Carolina
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ENCL iii TO TAB a TO APP V TO ANNEX A TO THE CHARLESTON O&H ACP
SPILL OF NATIONAL SIGNIFICANCE PROTOCOL

1. SPILL OF NATIONAL SIGNIFICANCE (SONS) RESPONSE ORGANIZATION. The SONS organization incorporates the unified command and control support mechanism, predesignates key positions, defines their roles, clarifies the relationships of key functional elements, and integrates the use of Coast Guard Reservists (for Coast Guard directed responses). The SONS plan provides for significant augmentation of the regional organization by a national structure containing 6 key elements: the National Incident Commander (NIC), the Alternate National Incident Manager, the National Incident Commander's Chief of Staff, the Crisis Action Center/Emergency Operations Center (CAC/EOC), the SONS Area Operations Coordinator, and the National Incident Commander's staff. The role definition of each is as follows:

a. National Incident Commander (NIC). When a Spill of National Significance is declared, the National Incident Commander will proceed to the scene, assume the role of FOSC and take strategic control of the situation. The principle responsibility of the NIC will be strategic management, ensuring that all possible actions are being taken to combat the spill, thereby reassuring the public that the full force of the formal response infrastructure is being utilized for the spill. The National Incident Commander should remain on scene to provide strategic coordination of the entire response effort for as long as the response exceeds regional capabilities. The Commandant will assign a Vice Admiral in the position of National Incident Commander.

b. Alternate National Incident Commander (NICa). The NICa will be the Coast Guard District Commander in whose district the spill has occurred. As District Commander, he/she will already be an integral part of the regional response structure, and will be in a position to continue liaison with the regional level officials and coordinate any resource issues with the adjacent districts or regions.

c. Crisis Action Center (CAC). The Chief of the Coast Guard Headquarters Office of Marine Safety, Security and Environmental Protection will direct the Headquarters CAC operations. The CAC Chief will be the key advisor to the Commandant of the Coast Guard and to the National Incident Commander during the incident.

d. NIC Chief of Staff. The Commanding Officer of the National Strike Force Coordination Center will serve as the National Incident Commander's principal advisor and Chief of Staff. Since this Officer's primary duty is to prepare for response to a SONS, his/her response expertise will be invaluable to the National Incident Commander in developing and executing strategic plans. He/she will serve as advisor to the National Incident Commander while providing direct operational guidance to the predesignated Area Operations Coordinators.

e. Area Operations Coordinator (AOC). The Predesignated On Scene Coordinator, as Area Committee chairman, will be designated as the AOC because of requisite local knowledge of the response area and the political and commercial contacts to initiate and sustain a cleanup operation. For SONS, there will most likely be multiple AOC, each retaining tactical responsibility for their own area.

f. Support Staff. The National Incident Commander will require a number of staff elements to effectively manage and coordinate his/her responsibilities. This will facilitate rapid implementation during a SONS event and encourage the formation of a coordinated management team. The major staff components include a Support Operations Division, a Strategic Planning Division, a Logistics Division, and a Finance Division. An External Affairs Division has been added to deal with anticipated heavy public affairs and protocol workload.

2. SONS DECLARATION. The Commandant of the Coast Guard alone is empowered to declare a SONS in the coastal zone, taking into account environmental risks, weather conditions, response capabilities and the amount, or potential amount, of product spilled. A Coast Guard Area or District Commander may recommend to the Commandant that a SONS be declared. Factors to be considered in declaring a SONS might include:

- (a) multiple FOSC zones/districts/international borders are affected;
- (b) significant impact on or threat to the public health and welfare, wildlife, population, economy and/or property over a broad geographic area;
- (c) protracted period of discharge and/or expected cleanup;
- (d) significant public concern and demand for action by parties associated with the event; and
- (e) the existence of or the potential for a high level of political and media interest.

3. COMMANDANT NOTIFICATION. The Commandant will be notified of a possible SONS incident by the National Response Center. If the Commandant declares a SONS, the following actions will occur.

- (a) The NIC will be designated;
- (b) the NIC will deploy the National Incident Task Force (NITF) Initial Response Team;
- (c) other Departments/Agencies will be notified; and
- (d) all predesignated NITF personnel will be placed on immediate alert.

4. INITIAL RESPONSE TEAM (IRT). The "time-phased implementation" of the NITF will be an integral component of an effective response. The key to effectively implementing the NITF organization is the NITF Initial Response Team (IRT). All Initial Response Team personnel will be issued open orders, pagers, and government travel cards to facilitate their rapid deployment to the scene.

a. Initial Response Team (IRT) Role. During a catastrophic spill response, an emergent organization will evolve, based on the dynamics of the situation and the personalities involved. The IRT's role is to ensure a continued and effective response by controlling the emergent organization's growth. Additionally, the will provide essential continuity between the local FOSC and the incoming NITF organization during the transition.

b. Initial IRT Actions. Response Team will arrive on scene within 24 hours after the declaration of a SONS, and will have the resources to function for up to 72 hours without additional NITF personnel. Upon arrival, the Initial Response Team members will assess the situation and determine the details of NITF assembly: where, how, and to what magnitude the NITF will be staffed. The Initial Response Team will then coordinate preparations to receive the NITF organization. The majority of the NITF staff should arrive within one week of declaration.

c. Establishment of NITF Command Post. A primary task of the IRT will be to establish the NITF command post. The NITF command post should be in the general proximity of the spill and should be large enough to handle the expected growth of the command staff. A response to a SONS will likely last several months, so the NITF will require a dedicated command post, separate from existing command centers that are fully employed with coordinating other operations.

d. IRT/NITF Interaction. Once the incident specific NITF staffing plan is developed, and additional NITF personnel arrive on scene, the Initial Response Team will facilitate the transition to the full NITF organization. A significant portion of the Initial Response Team will remain on scene, acting as part of NITF's assigned staff. Refer to figure (7) for a listing of IRT and NITF billets.

TAB b TO APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
NATIONAL RESPONSE POLICY

1. GENERAL. Implementing Acts.

a. Federal Water Pollution Control Act (FWPCA). Section 4201 of OPA 90 amended Subsection (c) of Section 311 of the FWPCA, to require the Federal OSC to "in accordance with the National Contingency Plan (NCP) and any appropriate Area Contingency Plan (ACP), ensure effective and immediate removal of a discharge, and mitigation or prevention of a substantial threat of a discharge, of oil or a hazardous substance -

- "(i) into or on the navigable waters;
- "(ii) on the adjoining shorelines to the navigable waters;
- "(iii) into or on the waters of the exclusive economic zone; or
- "(iv) that may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States."

In carrying out these functions, the OSC may:

- "(i) remove or arrange for the removal of a discharge, and mitigate or prevent a substantial threat of a discharge, at any time;
- "(ii) direct or monitor all Federal, State, and private actions to remove a discharge; and
- "(iii) recommend to the Commandant that a vessel discharging or threatening to discharge, be removed and, if necessary, destroyed."

If the discharge or substantial threat of discharge of oil or hazardous substance is of such size or character as to be a substantial threat to the public health or welfare of the United States (including but not limited to fish, shellfish, wildlife, other natural resources, and the public and private beaches and shorelines of the United States), the OSC shall direct all Federal, State, and private actions to remove the discharge or to mitigate or prevent the threat of the discharge.

b. Comprehensive Environmental Response, Compensation, and Liabilities Act (CERCLA). CERCLA, 42 USC 9601 et seq, is a broader policy than the FWPCA in that it prohibits releases of hazardous substances anywhere into the environment including air, land, and water. It also covers a broader spectrum of hazardous materials than those recognized by the FWPCA. Congress enacted CERCLA in 1980 to prevent and mitigate releases of hazardous substances into the environment.

2. RESPONSE ACTIVITIES. The framework for all pollution response activity and investigatory action is founded in the National Contingency Plan (NCP). Within the NCP, oil and hazardous substance incidents are described in terms of size and phase. Federal response policy is keyed to those criteria, with expected action defined for each phase.

a. Incident Size Characterization.

- (1) *Oil spills* are classed into three different categories; minor, medium, and major. A minor spill being defined as 10,000 gallons or less; a medium is between 10,000

and 100,000 gallons; and finally, a major spill being greater than 100,000 gallons. These spill terms are not necessarily associated with any relative significance placed upon the importance of a spill's mitigation. Standard procedures dictate, that a spill will remain a priority for mitigation as long as any recoverable material remains in the environment.

- (2) ***Hazardous material releases*** are also categorized as minor, medium, and major. However, the criteria for size classification is less clearly defined. A release is defined as "minor", if it poses a minimal threat to public health or welfare, or to the environment. A "major" release poses a substantial threat, or results in significant public concern. A "medium" release is defined as one not meeting the criteria for classification as a "minor" or "major" release. Given these vague definitions, it is imperative that the appropriate subject matter experts, from within and external to the local organization, be advised any time there is a report of a release or potential release.

b. Incident Phases. The action taken by the FOSC to a report of a discharge or release is divided into stages. The terms used to describe these stages differ with respect to a response to an oil discharge or a hazardous substance release. These differences are demonstrated below.

(1) ***Oil Discharge Response:***

- (a) Phase I, Discovery and Notification.
- (b) Phase II, Preliminary Assessment and Initiation of Action.
- (c) Phase III, Containment, Countermeasures, Cleanup, and Disposal.
- (d) Phase IV, Documentation and Cost Recovery.

(2) ***Hazardous Materials Release Response:***

- (a) Discovery and Notification.
- (b) Preliminary Assessment and Initiation of Action.
- (c) Removal.
- (d) Site Evaluation and National Priorities List Determination.
- (e) Remedial Action.
- (f) Cost Recovery and Documentation.

TAB c TO APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
STATE RESPONSE SYSTEM

Reference: (a) South Carolina Emergency Operations Plan
(b) South Carolina Contingency Plan for Spills and Releases of Oil and Hazardous Materials
(c) Code of Laws of South Carolina

1. SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (SCDHEC). SCDHEC is the state agency responsible for protecting and promoting public health and the environment. SCDHEC is designated a natural resource trustee in the State of South Carolina under the federal Comprehensive Environmental Response, Compensation and Liability Act.

a. State On-Scene Coordinator (SOSC). SCDHEC is also responsible for enforcing environmental law in the State of South Carolina. Under reference (b), SCDHEC has been designated as the agency responsible for responding to, and investigating, spills and releases of oil and hazardous materials. Reference (b) also designates a SOSC who is responsible for determining SCDHEC's level and method of response. For each environmental quality control (EQC) district, the plan enables the SOSC to appoint District On-Scene Coordinators (DOSCs). They work as the SOSC's agents and are empowered to represent the SOSC.

b. SCDHEC's Central Office Emergency Response Section (ERS). The ERS is the central point for reporting releases of oil and hazardous substances within the state. The ERS also receives reports of fish kills within South Carolina.

The ERS consists of nine staff positions, three emergency response vehicles, an oil spill response trailer, and various other supplies to facilitate a response to oil and hazardous material releases within the state. Reference (b) addresses what equipment is available within the ERS, it also describes all other equipment and personnel available to the ERS during such releases.

c. State Laws and Regulations Applicable to SCDHEC Activity.

- i. **Pollution Control Act, Title 48-1**. Authority for SCDHEC to abate, control, and prevent pollution.
- ii. **Hazardous Waste Management Act, Title 44-56**. Adopts federal CERCLA as state law. Under "state CERCLA" the state is authorized to take any action, consistent with the state contingency plan, that it deems necessary to protect the public health, public welfare, or the environment.
- iii. **South Carolina Oil and Gas Act, Title 48-43**. Empowers SCDHEC to deal with hazards and threats of danger and damage posed by transfers of pollutants between vessels, shore facilities and vessels, and between facilities, and requires prompt containment and removal of pollution caused by any of those actions.

- iv. **South Carolina Hazardous Waste Management Regulations, 61-79.** Requires that regulated generators or treaters, storers, or disposers of hazardous wastes have a contingency plan and emergency procedures that must be implemented upon release of a hazardous waste.
- v. **The South Carolina Air Pollution Control Regulations.** Requires violators of any air pollution statute to control the source and prohibits open burning.
- vi. **The South Carolina State Underground Petroleum Environmental Response Bank Act.** Requires release reporting, assessment and remediation from any underground storage tank (UST).

2. **SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES (SCDNR).** The SCDNR is the agency responsible for the protection, conservation, and management of the natural resources of the State of South Carolina and their habitats. In addition, the SCDNR provides input regarding resources that have been or are likely to be impacted and assists with any quantification of losses which is needed. If there is injury for which damage assessment may be pursued, SCDNR works to obtain the necessary information for this process. Protection of resources from the degradation of the habitats in which they live is an important aspect of SCDNR's responsibilities.

a. **State Natural Resource Trustee (NRT).** Pursuant to the Superfund Act Reauthorization Amendments (SARA) of 1988 to the CERCLA, the SCDNR was designated by the Governor as one of the NRTs for South Carolina. This designation requires the notification and consultation of SCDNR by the FOSC for any situation where a release or the threat of a release or spill of a hazardous substance or oil has impacted or threatens to impact natural resources for which SCDNR has responsibility, to minimize the impact or threat.

b. **SCDNR Law Enforcement Division.** Assists the Coast Guard with vessel traffic control during marine events, boating season, and during special operations such as safety/security zone enforcement.

c. **Laws and Regulations Applicable to SCDNR Activity.**

- i. **SC State Law 48-4-10.** SCDNR enabling authority.
- ii. **Federal Fish and Wildlife Coordination Act.** Requires that Federal agencies undertaking certain activities must consult with state fish and wildlife agencies to determine potential resource impacts and means and measures to mitigate those impacts.
- iii. **Pollution Control Act, South Carolina Oil and Gas Act, and the South Carolina Hazardous Waste Management Regulations.** These Acts and regulations specify responsibilities for the SCDHEC for pollution events, but also include requirements for assessing impacts to natural resources from the occurrences. SCDNR provides assistance to SCDHEC in these matters.

TAB d TO APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
STATE RESPONSE POLICY

Reference: (a) South Carolina Emergency Operations Plan

1. SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL
CONTROL (SCDHEC).

a. State Declaration. It is declared to be the public policy of the State to maintain reasonable standards of purity of the air and water resources of the State, consistent with the public health, safety, and welfare of its citizens, maximum employment, the industrial development of the State, the propagation and protection of terrestrial and marine flora and fauna, and the protection of physical property and other resources. It is further declared that to secure these purposes and the enforcement of the provisions of this act, the South Carolina Department of Health and Environmental Control (SCDHEC) shall have authority to abate, control and prevent pollution. (Section 48-1-20, S.C. Code of Laws, 1975, as amended.)

Additionally, response issues dealing specifically with oil and hazardous materials are accomplished through coordinated efforts with other federal, state and local agencies. Through this coordinated effort the state of South Carolina will respond, as represented by the SCDHEC (U.S. EPA Region IV state representative), to all oil spills and hazardous material releases within their predesignated area of responsibility. However, this should not preclude mutual assistance among all involved agencies.

b. SCDHEC Emergency Response Team (ERT). SCDHEC trains and maintains an ERT to provide assistance and guidance during oil spill or hazardous material release incidents. They also provide technical assessment of the hazard and make appropriate recommendations for protective actions. Additionally, they provide monitoring for spill movement and technical advice on control, containment, clean up and disposal of spilled material. SCDHEC may request technical assistance from federal agencies and neighboring states in accordance with existing regulations. Upon notification of a spill, the ERT will initiate immediate response action to assist at the spill site and notify all other persons, agencies, industries and/or businesses throughout the state, who could be affected by the spill.

c. Notifications. In accordance with Section 48-43-550 of the South Carolina Code of Law, 1976, as amended, effective June 13, 1977, reports of oil or other hazardous substance spills are to be made to the SCDHEC. In accordance with 33 CFR 153.203, effective January 1, 1977, all reports of oil or hazardous substances discharges are to be made to the National Response Center (NRC) via the toll free telephone number, 1-800-424-8802. These reports will then be forwarded to the cognizant predesignated federal on-scene coordinator for investigation and appropriate action.

d. Reports of spills or releases. Reporting of all spills of oil or substances to the lands and/or waters of the State must be made to the SCDHEC via the 24-hour emergency telephone number listed below. All spills that result in a discharge to waters or pose a threat of a discharge to waters must be reported to the U.S. Coast Guard or the U.S. Environmental Protection Agency and the National Response Center.

- i. SCDHEC must be notified of all oil spills and all spills of hazardous materials. SCDHEC's level of response will be based upon the nature and location of release.

- ii. All notifications should be made to:

1-803-253-6488, or
1-888-481-0125 toll free

2. SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES (SCDNR).

a. Relationship with SCDHEC. Several pieces of legislation, including the S.C. Pollution Control Act, the S.C. Oil and Gas Act, and the S.C. Hazardous Waste Management Act, which specify responsibilities for SCDHEC for pollution events, also include requirements for assessing impacts to natural resources from these occurrences. SCDNR provides assistance and input to SCDHEC in these matters.

b. Reports of Spills or Releases. In the event of a spill or release of oil or a hazardous substance in South Carolina, personnel of the SCDNR are notified by the USCG, the US EPA, and/or SCDHEC.

- i. SCDNR should be notified of all oil spills greater than 10 gallons, and all spills of hazardous materials. SCDNR's level of response will be based upon the nature and location of release.
- ii. Notifications should be made as follows:

Monday to Friday, 0830 - 1700: (803) 762-5027/5068.

All other times, or if the M-F call goes to phone mail: 1-800-922-5431

TAB e TO APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
LOCAL RESPONSE SYSTEM

Reference: (a) 40 CFR 300, National Contingency Plan

1. LOCAL FIRE DEPARTMENTS.

a. Statutory Authority. Empowered by South Carolina State's Emergency Powers Act, local fire departments have broad authority and responsibility when responding to an oil spill or hazardous materials release occurring within their jurisdiction, regardless of whether a fire is involved or not. Once on-scene, the senior fire official for the department in whose jurisdiction the incident occurs in becomes the senior local representative on-scene as the Incident Commander (IC) and maintains that role throughout the emergency response phase or until relieved by the State or Federal On-Scene Coordinator.

2. COUNTY EMERGENCY PREPAREDNESS DIVISIONS (CEPDs) & LOCAL
EMERGENCY PLANNING COMMITTEES.

a. Statutory Authority. County emergency preparedness organizations were created by state law, Regulation 58-1 Emergency Preparedness Standards, SC Code of Regulations, dated 1980. The State of South Carolina responded to SARA Title II by creating LEPCs at the county level. The governor appointed each county's EPD director as the LEPC's coordinator. Though in some South Carolina counties the coordinator concurrently serves as committee Chairman.

TAB f TO APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
LOCAL RESPONSE POLICY

Reference: (a) 40 CFR 300, National Contingency Plan
(b) PL 101-380, Oil Pollution Act of 1990
(c) 33 USC 1321, Federal Water Pollution Control Act of 1977
(d) 42 USC 9601, Comprehensive Environmental Response, Compensation, and Liability Act of 1980

1. CHARLESTON COUNTY.

a. Charleston County Fire Departments.

- (1) **Statutory Authority.** The State Powers Act, as discussed in Tab e to this Appendix, requires the senior fire official in whose jurisdiction the incident occurs to assume the lead role as Incident Commander throughout the emergency phase of the incident. This is the process for all fire departments within Charleston County.
- (2) **Jurisdiction.** CCFD's jurisdictions are predefined by the township or city within which they reside. There are 16 fire jurisdictions within the county. See Annex F Appendix IV, Tab r for FD listings.
- (3) **Notification Requirements.** Cognizant FDs will be notified of all incidents occurring within their jurisdiction.
- (4) **Response Role.** Incident Command throughout emergency phase.

b. Charleston County Emergency Preparedness Division (CCEPD).

- (1) **Statutory Authority.** The governor appointed each county's EPD director as the LEPC's coordinator. Charleston County promulgated County Ordinance No. 485, dated 5 July 1983, which adopted the State's Regulation 58-1 and established the CCEPD.
- (2) **Jurisdiction.** CCEPD's jurisdiction is the entire County of Charleston which about 1,000 square miles with 95 miles of coastline. None of the individual municipalities have an EPD agency per se. The larger cities within the county have a representative from their mayor's office that CCEPD coordinates with directly for planning and contingency response.
- (3) **Notification Requirements.** Though CCEPD does not consider itself as a "first call" agency, it should be notified early enough in the response operation to be effective in its role as a coordinator. CCEPD should be notified whenever an incident is large enough to require notification of other LEPC members.

(4) **Response Role.** CCEPD is the coordinating agency for all local government emergency services and public safety agencies. CCEPD is also the starting point for state assistance and resources needed from FEMA that are not required directly from the Coast Guard under separate arrangements. Generally, CCEPD would respond to the Command Post and serve on the Incident Commander's immediate staff as a liaison officer. In larger events, CCEPD would activate Charleston County's own emergency operations center (EOC), and run its Situation Room and all that generally encompasses EOC operations.

c. Charleston County Hazardous Materials Division (CCHMD). The Charleston County Hazardous Materials Division was formed to implement Charleston County Ordinance 914 which was adopted January 18, 1994. The ordinance imposes a fee on businesses, which is used to improve local response to hazardous materials incidents through training, equipment, and advice.

(1) **Hazardous Materials Fee.** The fee is imposed throughout Charleston County and CCHMD has jurisdiction over the collection of the fee. The use and dispersal of the fees' monies is subject to scrutiny by the Charleston County Fire Chiefs. The Charleston County Council then forwards the usage request to the local Emergency Planning Committee's Facility Subcommittee before final approval.

(2) **Duties of the CCHMD Staff.** The two staff members' duties include the following:

- ◆ Manage the Charleston County fee-based Ordinance 914.
- ◆ Provide training to area responders and industry.
- ◆ Provide equipment that would be too expensive or too specialized for one of the county's hazardous materials response teams to purchase.
- ◆ Assist a response as requested by providing advice, technical assistance, and in some cases, resources from CCHMD's stock or seek response resources from other suppliers.
- ◆ Complete other duties as assigned. These duties usually involve researching and answering requests for information for the county's response organizations. These information requests have included information on California's fireproof plant program and shake shingle ordinances, and on standard operating guidance on trench rescues.

(3) **Notification.** Each organization within the county has the option to notify the CCHMD of any spills or releases. Once notified the CCHMD must respond as requested.

d. Fire/Police Department Hazardous Materials Response Teams. There are five Fire or Police Department response teams within Charleston County. They operate under the jurisdiction of their parent FD or PD. The teams are staffed by duty personnel who have been certified as "Technician Level" responders, in accordance with OSHA guidelines. The level of equipment available varies among teams but existing "Mutual Aid" agreements level any shortfalls. Teams are located at the following FDs:

- ◆ City of Charleston FD
- ◆ City of Charleston PD
- ◆ City of North Charleston FD
- ◆ Town of Mt. Pleasant FD
- ◆ St. Johns FD

e. Charleston County/City Police and Sheriffs Departments. Although not assigned specific responsibilities during an incident their assistance in affecting the success of a response is a critical success factor. Any request for County and/or City Police and/or Sheriff Department should be coordinated through the responding FD or state agency.

2. GEORGETOWN COUNTY. TBD

TAB g TO APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
RESPONSIBLE PARTY RESPONSE POLICY

Reference: (a) 40 CFR 300, National Contingency Plan
(b) PL 101-380, Oil Pollution Act of 1990
(c) 33 USC 1321, Federal Water Pollution Control Act of 1977
(d) 42 USC 9601, Comprehensive Environmental Response, Compensation, and Liability Act of 1980

1. **RESPONSIBLE PARTY REQUIREMENTS.** Under OPA 90, the responsible party has primary responsibility for cleanup of a discharge. The response shall be conducted in accordance with their applicable response plan. Section 4201(a) of OPA 90 states that an owner or operator of a tank vessel or facility participating in removal efforts shall act in accordance with the National Contingency Plan and the applicable response plan required. Section 4202 of OPA 90 states that these response plans shall:

- "(i) be consistent with the requirements of the National Contingency Plan and Area Contingency Plans;
- "(ii) identify the qualified individual having full authority to implement removal actions, and require immediate communications between that individual and the appropriate Federal official and the persons providing personnel and equipment pursuant to clause (iii);
- "(iii) identify, and ensure by contract or other means approved by the President, the availability of private personnel and equipment necessary to remove to the maximum extent practicable a worst case discharge (including a discharge resulting from fire or explosion), and to mitigate or prevent a substantial threat of such a discharge;
- "(iv) describe the training, equipment testing, periodic unannounced drills, and response actions of persons on the vessel or at the facility, to be carried out under the plan to ensure the safety of the vessel or facility and to mitigate or prevent the discharge, or the substantial threat of a discharge;
- "(v) be updated periodically; and
- "(vi) be resubmitted for approval of each significant change."

2. **RESPONSE PLAN REQUIREMENTS.** Each owner or operator of a tank vessel or facility required by OPA 90 to submit a response plan shall do so in accordance with applicable regulations. Facility and tank vessel response plan regulations, including plan requirements, are located in 33 CFR Parts 154 and 155, respectively.

3. **RESPONSIBLE PARTY'S LIABILITY.**

a. Oil Pollution Act of 1990 (OPA 90). As defined in OPA 90, each responsible party for a vessel or a facility from which oil is discharged, or which poses a substantial threat of a discharge, into or upon the navigable waters or adjoining shorelines or the Exclusive Economic Zone is liable for the removal costs and damages specified in Subsection (b) of Section 1002 of OPA 90. Any removal activity undertaken by a responsible party must be consistent with the provisions of the NCP, the Regional Contingency Plan (RCP), the Area Contingency Plan, and the applicable response plan required by OPA 90. If directed by the OSC at any time during removal activities, the responsible party must act accordingly.

b. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). Each responsible party for a vessel or facility from which a hazardous substance is released, or which poses a substantial threat of a release, is liable for removal costs as specified in CERCLA (42 USC 9601 et seq).

4. **RIGHTS OF THE RESPONSIBLE PARTY.** As long as the responsible party is taking appropriate action, the responsible party maintains their right to be in full partnership with the response effort and the Unified Command. That is:

- ◆ The Responsible Party has the right to be a fully participating member of the Unified Command and is expected to exercise that right;
- ◆ The Responsible Party has the right to a timely and accurate cost accounting of reimbursable government expenditures and, when practical, should be approached with all requests to bring government furnished equipment to the scene prior to mobilizing that equipment; and
- ◆ The Responsible Party has the right to offer dissenting opinions within the Unified Command.

TAB h TO APPENDIX V TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP ROLE OF THE ON-SCENE COORDINATOR

Reference: (a) 40 CFR 300, National Contingency Plan

1. GENERAL.

a. FOSC Designation. The Federal On Scene Coordinator (FOSC) is the predesignated Federal official responsible for ensuring immediate and effective response to a discharge or threatened discharge of oil or a hazardous substance. The U.S. Coast Guard designates FOSCs for the U.S. coastal zones, while the U.S. EPA designates FOSCs for the U.S. inland zones.

b. First Federal Official On Scene. The first federal official affiliated with an NRT member agency to arrive at the scene of a discharge or release should coordinate activities under the NCP and is authorized to initiate, in consultation with the FOSC, any necessary actions normally carried out by the FOSC until the arrival of the predesignated FOSC. This official may initiate federal fund-financed actions only as authorized by the FOSC.

c. Unified Command. Where appropriate, the FOSC shall establish a unified command consisting of the FOSC, the State On Scene Coordinator, and the Responsible Party Incident Manager. The FOSC is responsible for assigning individuals from within the response community (Federal, State, local or private), as necessary, to fill the designated positions in the NRS incident level response organization. It should be noted, however, that one individual may fill several of the designated positions. These assignments will be predicated on the nature of the spill and the need for extensive manning. These functional responsibilities and position titles, if staffed, are thoroughly described in the functional sections of this plan.

2. OSC RESPONSIBILITIES.

a. Initial Response. The FOSC shall, to the extent practicable, and as soon as possible after the incident occurs, collect pertinent facts about the discharge, such as its source and cause; the identification of responsible parties; the nature, amount, and location of discharged materials; the trajectory of discharged materials; whether the discharge is a worst case discharge; the pathways to human and environmental exposure; the potential impact on human health, welfare, safety and the environment; whether the discharge poses a substantial threat to the public health or welfare; the potential impact on natural resources and property which may be affected; priorities for protecting human health and welfare and the environment; and appropriate resource documentation.

b. Coordination. The FOSC's efforts shall be coordinated with other appropriate Federal, State, local, and private response agencies. An FOSC may designate capable individuals from Federal, State, or local agencies to act as her/his on scene representatives. State and local governments, however, are not authorized to take actions under Subpart D of the NCP that involve expenditures of the Oil Spill Liability Trust Fund (OSLTF) unless an appropriate contract or cooperative agreement has been established.

c. Regional Response Team (RRT) Utilization. The FOSC should consult with the RRT, when necessary, in carrying out the requirements of the NCP and keep the RRT informed of activities under the NCP. The FOSC is responsible for addressing worker health and safety concerns at a response scene.

d. Public Health Emergencies. In those instances where a possible public health emergency exists, the FOSC should notify the Health and Human Services (HHS) representative to the RRT. Throughout response actions, the FOSC may call upon the HHS representative for assistance in determining public health threats and call upon the Occupational Safety and Health Administration (OSHA) and HHS for advice on worker health and safety problems.

e. Natural Resource Trustees. The FOSC shall ensure that the Federal and State trustees for natural resources are promptly notified of discharges. The FOSC shall coordinate all response activities with the affected natural resource trustees and shall consult with the affected trustees on the appropriate removal action to be taken. Where the FOSC becomes aware that a discharge may affect any endangered or threatened species, or their habitat, the FOSC shall consult with the cognizant trustee for that resource.

f. Pollution Report Distribution. The FOSC shall submit pollution reports to the RRT and other appropriate agencies as significant developments occur during response actions, through communications networks or procedures agreed to by the RRT and covered in the Regional Contingency Plan (RCP).

g. Community Awareness. FOSCs should ensure that all appropriate public and private interests are kept informed and that their concerns are considered throughout a response, to the extent practicable.

APPENDIX VI TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP PLAN REVIEW

1. REQUIRED REVIEW. Area Contingency Plans shall be reviewed and updated annually by the Area Committee. Plans shall be reviewed to ensure all information is current, and in particular, the following areas shall be looked at:

- ◆ Emergency notification list,
- ◆ Response equipment information (type and amount of equipment available),
- ◆ Sensitive areas,
- ◆ Hazard/risk assessment of the area,
- ◆ Response strategies (changes based on new technology, new equipment, etc.), and
- ◆ Dispersant approval. Any changes to the plan must be noted on the record of changes page.

2. PROCESS AND APPROVAL.

a. All revisions and updates will be coordinated with any agency affected by such change. Comments may be solicited and submitted by mail, fax, telephone, and E-mail.

b. If there is significant discussion on a particular issue, meetings will be held to resolve any differences.

c. All revisions will be approved by the Captain of the Port for format and amendment numbering.

d. The U.S. Coast Guard Marine Safety Office will revise and publish revisions to the Area Plan based on input from the committee.

e. All revisions will be accompanied by a revision to the list of effective pages/table of contents. Sufficient copies will be printed to effect distribution as per the distribution list.

3. LIVING DOCUMENT. It is the intent of the Area Committee that this Contingency Plan be a "living document". The annual review and update requirement is a minimum. The topic of corrections or problems addressed in this plan should be discussed at each of the Area Committee or subcommittee meetings. Significant problems should be addressed immediately.

APPENDIX VII TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP EXERCISES AND DRILLS

The **National Preparedness for Response Exercise Program (PREP)** was developed to establish a workable exercise program that meets the intent of the mandates of OPA 90. The PREP was developed to provide a mechanism for compliance with the exercise requirements, while being economically feasible for government and industry to adopt and sustain. The PREP is a unified federal effort and satisfies the exercise requirements of the Coast Guard, the EPA, the Research and Special Programs Administration (RSPA) Office of Pipeline Safety, and the Minerals Management Service (MMS). Completion of the PREP exercises will satisfy all OPA 90 mandated federal oil pollution response exercise requirements.

Currently, the PREP only addresses oil pollution response exercises. Similar requirements for Hazardous Materials are being developed.

The PREP uses a **Triennial Exercise Regime** to exercise contingency plans. Every 3 years all components of the entire response plan must be exercised. Rather than requiring each plan holder to conduct a major exercise every 3 years, the PREP allows for the individual components to be exercised over the period.

The following are the basic types of plan components that must be exercised at least once every 3 years:

ORGANIZATIONAL DESIGN

- ◆ Notifications
- ◆ Staff Mobilization
- ◆ Ability to operate the response management system described in the plan.

OPERATIONAL RESPONSE

- ◆ Discharge control
- ◆ Assessment of discharge
- ◆ Containment of discharge
- ◆ Recovery of spilled material
- ◆ Protection of sensitive areas
- ◆ Disposal of recovered material and contaminated debris

RESPONSE SUPPORT

- ◆ Communications
- ◆ Transportation
- ◆ Personnel support
- ◆ Equipment maintenance and support
- ◆ Procurement
- ◆ Documentation

In the Triennial Cycle, the following internal exercises must be conducted:

- ◆ 12 Qualified Individual (QI) notification exercises;
- ◆ 12 Emergency procedures exercises (optional for facilities);
- ◆ 3 Spill Management Team (SMT) Table Top Exercises (TTX);
- ◆ 3 Unannounced exercises;

Equipment Deployment Exercises (EDX) as outlined below:

- ◆ 6 For facilities covered in this plan, for facilities that use their own equipment to respond;
- ◆ 3 For vessels and facilities that use an Oil Spill Removal Organization (OSRO).

Finally, there are Government and Industry sponsored **Area Exercises**. The purpose of the Area Exercises is to test the entire response community in an area holding and covered by a specific Area Contingency Plan. The goal of this program is to conduct 20 area exercises nationally every year.

The NSFCC is responsible for executing the National Response System Pollution Exercise Program. All Coast Guard participation in exercises will be coordinated with and/or through the NSFCC. For more information on the program see the PREP guidelines or contact MSO Charleston's Port Operations Department.

APPENDIX VIII TO ANNEX A TO THE CHARLESTON OIL & HAZMAT ACP
APPLICABLE MEMORANDUMS OF UNDERSTANDING/AGREEMENT

1. GENERAL. A memorandum of understanding (MOU), memorandum of agreement (MOA), or interagency agreement (IA) is a written agreement, usually between two parties, which outlines the terms of a contract. MOUs, MOAs, and IAs between the U.S. Coast Guard and other governmental agencies which are involved in the Coast Guard's mission of responding to discharges or releases of oil or hazardous substances into the environment are especially important to contingency planning. The following is a listing and brief description of the MOUs, MOAs, and IAs that involve the Coast Guard's mission of pollution response.

a. MOU Between the U.S. Coast Guard (USCG) and the Environmental Protection Agency (EPA). -- Signed 4 January 1982. The USCG and the EPA agree that a means is required to fund USCG costs incurred during releases, or threats of releases, of hazardous substances or pollutants or contaminants. This MOU establishes the accounting, contracting, and fund management control policies and procedures for USCG response actions.

b. MOU Between the Environmental Protection Agency (EPA) and the U. S. Coast Guard (USCG) Concerning the Mitigating of Damage to the Public Health or Welfare Caused by a Discharge of a Hazardous Substance under Section 31 of the Clean Water Act. -- Signed 3 October 1979. The EPA and the USCG agree that the responsibility for the mitigation of damage to the public health and welfare caused by the discharge of hazardous substances shall be shared by the EPA and the USCG. This MOU establishes policy concerning the responsibilities of the EPA and the USCG regarding mitigation actions.

c. MOU Between the Departments of the Interior and Transportation Concerning Respective Responsibilities Under the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). -- Signed 16 August 1971. To assure the most efficient use of resources under the NCP, the Secretaries agree that the U.S. Geological Service (USGS) has the capability to coordinate and direct measures to abate a pollution incident when the source of pollution is an oil, gas, or sulfur well. Whereas the USCG has the capability to coordinate and direct measures to contain and remove pollutants. This MOU establishes the provisions to be observed by the agencies of the two Departments in the exercise of their authority and the discharge of their responsibilities.

d. IA Between the U.S. Navy and the U.S. Coast Guard for Cooperation in Oil Spill Clean-Up Operations and Salvage Operations. -- Signed 15 September 1980. The purpose of this IA is to specify the conditions and procedures under which the USCG can request, and the USN will provide, oil spill clean-up and/or salvage equipment and services to support the USCG in non-Navy oil spills and other operations requiring salvage expertise. As well as the conditions and procedures under which the USN can request, and the USCG will provide, equipment and services to support the USN in salvage operations and in response to oil spills which are caused by facilities or vessels under Navy jurisdiction. Reimbursement procedures and policies are also addressed.

e. IA Between the U.S. Fish and Wildlife Service (USFWS) and the U.S. Coast Guard (USCG) for Participation in Pollution Incidents. -- Signed 24 July 1979. The purpose of this IA is to specify the conditions and procedures under which the USFWS will provide USCG Federal On Scene Coordinators, with appropriate technical expertise as well as service in support of efforts to control and clean up oil and hazardous chemical discharges.

f. MOU Among the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA), the U.S. Coast Guard (USCG) and the U.S. Environmental Protection Agency (EPA) for Guidance for Worker Protection During Hazardous Waste Site Investigations and Clean up and Hazardous Substance Emergencies. -- Signed 18 December 1980. The purpose of this MOU is to provide guidance for the protection of workers who investigate and clean up hazardous waste sites and respond to hazardous substance emergencies.

g. LOA Between the U. S. Coast Guard Seventh District (USCG), the Environmental Protection Agency Region IV (EPA), U.S. Department of the Interior, U.S. Department of Commerce, and the State of South Carolina. -- Signed 7 August 1995. This LOA, while recognizing that mechanical removal is the preferred method of dealing with oil discharges, grants the USCG Federal On Scene Coordinator (FOSC) approval to authorize in-situ burning of oil spills on the waters of the State of South Carolina, within specified parameters.

h. MOU Between the Environmental Protection Agency (EPA), U. S. Coast Guard, and the General Services Administration (GSA) pertaining to the Federal Response Under the National Oil Hazardous Substance Pollution Contingency Plan -- Signed 2 April 1996. This MOU recognizes the general mission of the GSA to provide logistical and telecommunications support to the Federal establishment, in particular as part of their role on the NRT.

i. MOA between the Director of Military Support (DOMS) and the U. S. Coast Guard for the Aerial Application of Dispersants During Oil Spill Cleanup and Recovery Operations. Signed 20 August 1996. This MOA specifies procedures that can be used by the Coast Guard to request aircraft, equipment, and personnel from the U. S. Air Force Reserve for the application of dispersants, and specifies cost reimbursement.

j. RRT IV Dispersant Use Policy on Oil in Ocean and Coastal Waters. Dated 8 October 1996. General pre-approval policy for dispersant use in the coastal waters throughout Region IV. Agreed to be the USCG, USEPA, DOS, DOI, and SCDHEC.